



सत्यमेव जयते

File No: SEIAA 42 IND 2023

Government of India

Ministry of Environment, Forest and Climate Change

(Issued by the State Environment Impact Assessment Authority(SEIAA), KARNATAKA)



Date 04/07/2025



To,

Sri. Rajkumar Dhempe
M/s JSW Cement Limited, Vijayanagar Works, JSW Centre, OPP: MMRDA Ground, Bandra Kurla Complex, Bandra (East), Mumbai-400051, Mumbai, MUMBAI, MAHARASHTRA, Bandra Kurla Complex, 400051
rajkumar.dhempe@jsw.in

Subject: Grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 -regarding.

Sir/Madam,

This is in reference to your application submitted to SEIAA vide proposal number SIA/KA/IND1/493447/2024 dated 07/02/2025 for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24B1103KA5721671N
(ii) File No.	SEIAA 42 IND 2023
(iii) Clearance Type	Fresh EC
(iv) Category	B1
(v) Project/Activity Included Schedule No.	3(b) Cement plants
(vii) Name of Project	Proposed Expansion of Slag Grinding & Mixing Unit from 6.0 MTPA to 12.0 MTPA located near village Tornagallu, Tehsil- Sandur, District - Bellary, Karnataka. by M/s. JSW Cement Ltd.
(viii) Name of Company/Organization	Rajkumar Dhempe
(ix) Location of Project (District, State)	BALLARI, KARNATAKA
(x) Issuing Authority	SEIAA
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A, B and C)/

EIA & EMP Reports were submitted to the SEIAA for an appraisal by the SEIAA under the provision of EIA notification 2006 and its subsequent amendments.

4. The above-mentioned proposal has been considered by SEIAA in the meeting held on 23.05.2025 . The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed from the PARIVESH portal by scanning the QR Code above.
5. The brief about configuration of products and by products as submitted by the Project Proponent in form-1 (Part A, B and C)/ EIA & EMP Reports / presented during SEIAA are annexed to this EC as Annexure (1).
6. The SEIAA, in its meeting held on 23.05.2025, based on information submitted viz: Form 1 (Part A, B and C), EIA/EMP report etc & clarifications provided by the project proponent and after detailed deliberations on all technical aspects and public hearing issues and compliance thereto furnished by the Project Proponent, recommended the proposal for grant of Environment Clearance under the provision of EIA Notification, 2006 and as amended thereof subject to compliance of Specific and Standard EC conditions as given in this letter.
7. The SEIAA has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the State Environment Impact Assessment Authority(SEIAA) Appraisal Committee hereby accords Environment Clearance to the instant proposal of M/s. Rajkumar Dhempe under the provisions of EIA Notification, 2006 and as amended thereof subject to compliance of the Specific and Standard EC conditions.
8. The Ministry reserves the right to stipulate additional conditions, if found necessary.
9. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
10. The Project Proponent is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.
11. General Instructions:
 - (a) The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.
 - (b) 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.
 - (c) The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing 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.
 - (d) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.
 - (e) 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.
 - (f) 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.
 - (g) 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.
12. This issues with the approval of the Competent Authority

Copy To

1. The Secretary, Ministry of Environment, Forests and Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi – 110 003.

2. The Member Secretary, Karnataka State Pollution Control Board, Bengaluru.
3. The APCCF, Regional Office, Ministry of Environment & Forests (SZ), Kendriya Sadan, IV Floor, E & F wings, 17th Main Road, Koramangala II Block, Bengaluru – 560 034.
4. Guard File.

Annexure 1

Specific EC Conditions for (Cement Plants)

1. 1

S. No	EC Conditions
1.1	

Additional EC Conditions

N/A

Annexure 2

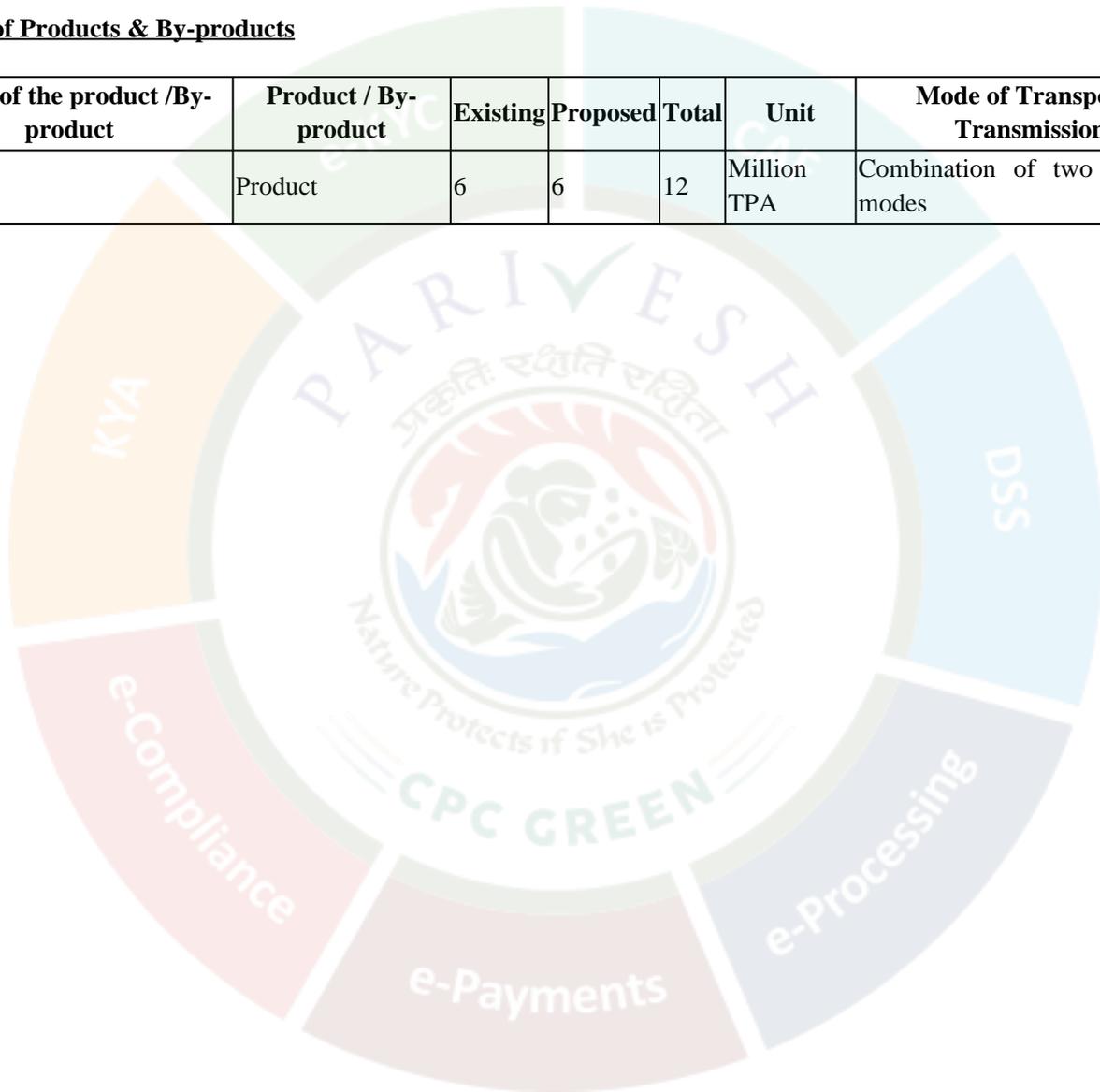
Details of the Project

S. No.	Particulars	Details	
a.	Details of the Project	Proposed Expansion of Slag Grinding & Mixing Unit from 6.0 MTPA to 12.0 MTPA located near village Tornagallu, Tehsil- Sandur, District -Bellary, Karnataka. by M/s. JSW Cement Ltd.	
b.	Latitude and Longitude of the project site	15.17120836978279,76.6945822643001 15.1842081857388,76.70375334856568	
c.	Land Requirement (in Ha) of the project or activity	Nature of Land involved	Area in Ha
		Non-Forest Land (A)	60.7
		Forest Land (B)	0
		Total Land (A+B)	60.7
d.	Date of Public Consultation	Public consultation for the project was held on	
e.	Rehabilitation and Resettlement (R&R) involvement	NO	

S. No.	Particulars	Details
f.	Project Cost (in lacs)	232600
g.	EMP Cost (in lacs)	16287
h.	Employment Details	2710

Details of Products & By-products

Name of the product /By-product	Product / By-product	Existing	Proposed	Total	Unit	Mode of Transport / Transmission
Cement	Product	6	6	12	Million TPA	Combination of two or three modes





State Level Environment Impact Assessment Authority-Karnataka

(Constituted by MoEF, Government of India, Under Section 3(3) of E(P) Act, 1986)

No. SEIAA 42 IND 2023

To,

Mr. Rajkumar Dhempe,
Vice President Operations and Projects
M/s. JSW Cement Limited,
Vijayanagar Works JSW Centre,
OPP: MMRDA Ground,
Bandra Kurla Complex,
Bandra (East), Mumbai-400051.

Sir,

Sub: Expansion of Slag Grinding & Mixing Unit from 6.0 MTPA to 12.0 MTPA located near village Tornagallu, Tehsil- Sandur, District –Bellary by M/s. JSW Cement Limited - Issue of Environmental Clearance - Reg.

* * * * *

This has reference to your online application dated 06.11.2023 bearing proposal No. SIA/KA/IND1/440769/2023 and EIA Report bearing proposal No. SIA/KA/IND1/493447/2024 dated 07.02.2025 addressed to SEIAA, Karnataka on the subject mentioned above along with Form-1, Pre-Feasibility report as per the EIA Notification, 2006. The proposal has been appraised as per the procedure prescribed in the provisions of the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., the Form 1, Form 1A, conceptual plans, EIA Report and the additional clarifications furnished in response to the observations of the SEAC, Karnataka.

2. The project proposal was issued standard ToR vide letter No. SEIAA 42 IND 2023 dated 08.11.2023 for conducting Environment Impact Assessment (EIA) Study. The EIA study conducted by M/s Horizon Ventures, 4, Anaga, Devasandra, New BEL Road, Opposite M S Ramaiah Hospital, Bangalore - 560 094, Karnataka, who have been accredited from NABET vide certificate No: NABET/EIA/2225/RA 0263. The Environmental Impact Assessment report has been submitted on 22.11.2024. The SEAC has recommended the Environment parameters as enclosed in the Annexure for issue of Environmental Clearance in their meeting held on 28th April 2025.

3. The SEIAA Karnataka in its meeting held on 23rd May 2025 after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations and has accepted the recommendation of SEAC and has decided to accord Environmental Clearance in

accordance with the provisions of Environmental Impact Assessment Notification-2006 and its subsequent amendments, subject to strict compliance of the following terms and conditions: -

I. Statutory compliance

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose is involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area)
- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/Committee.
- v. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- vi. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised 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 labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x emissions) within and outside the plant area at

least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: Manual; Large plants: Continuous)

- iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six monthly monitoring report.
- v. 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.
- vi. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- vii. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.
- viii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- ix. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.
- x. Provide wind shelter fence and chemical spraying on the raw material stock piles; and
- xi. Have separate truck parking area and monitor vehicular emissions at regular interval.
- xii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport
- xiii. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants

III. Water quality monitoring and preservation

- i. The project proponent shall install effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories. (case to case basis small plants: Manual; Large plants: Continuous)
- 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 recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.

- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. Adhere to 'Zero Liquid Discharge'.
- v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- vi. 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
- vii. The project proponent shall practice rainwater harvesting to maximum possible extent.
- viii. Water meters shall be provided at the inlet to all unit processes in the cement plant.
- ix. The project proponent shall make efforts to minimise water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

- i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

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 the offices and residential areas.
- iii. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.

VI. Waste management

- i. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
- ii. Kitchen waste shall be composted or converted to biogas for further use. (to be decided on Case to case basis depending on type and size of plant).



VII. Green Belt

- i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

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 PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- iii. 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.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

IX. Corporate Environment Responsibility

- i. The project proponent shall comply with provision contained in OM vide F.No. 22-65/2017-IA.III dated 20th October 2020, of the Ministry of Environment, Forest and Climate Change as applicable, regarding Corporate Environment Responsibility and shall execute the action plan of Setting up of skill development training center (Providing short duration training programs for unemployed youth in the field of domestic electrician, plumber, motor mechanic etc.) and Vocational Course, technical trainings (Kurekappa Village, Toranagallu Village and Bannatti Village), Establishment of fodder bank at Toranagallu by covering surrounding villages approx. 15 villages, Construction of CC Roads (Vaddu village, Toranagallu village) and Establishment of smart classrooms in villages (Vaddu -01 Toranagallu -01 Toranagallu RS-01 Talur -01), Upgradations/ Renovation of Classrooms in Schools of nearby Villages, support infrastructure development like construction of toilets (girls & boys) in Schools, drinking water facility, sports equipment, laboratory equipment's and installation of smart classes in the Government schools to promote Digital education etc. Upgradation of PHC and CHC with provision of equipment in Taranagar Village, Rejuvenation and desiltation of new Daroji Lake, Installation of water purifiers (RO plant), Setting up of Masala unit in village Kudtini for 50 women, Distribution of variety of 5000 sapling (tree species, herbal, fruit bearing types saplings with Tree guards and Avenue plantation in nearby villages & schools) and Providing Fencing around the plants, as submitted in Parivesh Portal.

- 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.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/ Regional Office along with the Six Monthly Compliance Report.
- v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- vi. All the recommendations made in the Chapter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.

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 submit the map duly authenticated by chief wild life warden showing the boundary of Daroji Bear Wildlife Sanctuary Vis a Vis the project location before undertaking expansion activity and shall be adhered to the recommendation or comments of the Chief wildlife warden thereon as committed.
- iv. 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.



- v. 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.
- vi. 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.
- vii. 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.
- viii. 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.
- ix. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- x. 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.
- xi. 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).
- xii. 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.
- xiii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xv. 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.

xvi. 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 and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

xvii. 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.

Additional Conditions:

1. The PP shall comply with the request of public, expressed during public hearing.
2. The PP shall adhere to the compliances given to the observation made of the Sub-Committee.
3. The PP shall comply with the observation in CCR issued by MoEF&CC.

Yours faithfully,


(Vijay Mohan Raj V)
Member Secretary
SEIAA Karnataka

Copy to:

1. The Secretary, Ministry of Environment & Forests and Climate Change Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi-110 003.
2. The Member Secretary, Karnataka State Pollution Control Board, Bangalore.
3. The APCCF, Regional Office, Ministry of Environment & Forests (SZ), Kendriya Sadan, IV Floor, E & F Wings, 17th Main Road, Koramangala II Block, Bengaluru - 560 034.
4. Guard File.

ANNEXURE

Sl.No.	Particulars	Information Provided by PP				
1	Name & Address of the Project Proponent	Mr.Rajkumar Dhempe, Vice President Operations and Projects M/s. JSW Cement Limited, Vijayanagar Works JSW Centre, OPP: MMRDA Ground, Bandra Kurla Complex, Bandra (East), Mumbai-400051.				
2	Name & Location of the Project	M/s. JSW Cement Limited P.O. Vidyanagar, Village Toranagallu, Dist. Bellary-583275 Karnataka, India Phone: 08395-241001 Fax: 08395-241003				
3	Type of Development as per schedule of EIA Notification, 2006 with relevant serial number	Activity3(b)of Category-B				
4	New/Expansion/Modification/ Product mix change	Expansion				
5	Plot Area (Sqm)	Existing = 607000 Sqm Proposed = 113300 Sqm After Expansion = 720300 Sqm				
6	Component of developments	Proposed Expansion of Slag Grinding & Mixing Unit				
7	Project cost (Rs. In crores)	Rs. 1215.0 Crores				
8	Details of Land Use (Sqm)					
Sl. No.	Land Purpose	Area in sqm			In %	
		Existing	Proposed	Total		
1	Ground coverage area	29.88	11.72	41.6	57.75	
2	Green belt area	12.87	10.9	23.77	33.00	
3	Road and Open area	4.5	1.89	6.39	8.87	
4	Vacant land	13.45	(-)13.18	0.27	0.37	
Total area		60.7	11.33	72.03	100	
9	Products and By-Products with quantity (enclose as Annexure if necessary)	Sl. No	Name of Product	Qty in TPA		
				Existing	Proposed	Total
		1	Cement (OPC, PPC, PSC, Composite Cement, GGBS)	6000000	6000000	12000000
10	Raw material with quantity and their source-enclose as Annexure if necessary	In table below.				
11	Mode of transportation of Raw material and storage facility					

S. No	Raw Material	Qty in TPD *345 Working days			Source	Transport Mode	Distance from Plant
		Existing	Proposed	Total			
1	BF Slag	14377	11565	25942	JSW Steel Limited	Rail/Road Proposed Closed Conveyer	~5 km
2	Dry Fly Ash	232	3913	4145	JSW Energy Limited	Road	~5 km
3	Clinker	3275	5333	8608	JSWCL, Nandyal Works	Rail/Road	~ 250 km
4	Gypsum	200	899	1099	Imported through Chennai port	Rail/Road	~500 km

Fuel Requirement

S. No.	Name of Fuel	Existing Quantity	Proposed Quantity	Total After Expansion Quantity	Source	Distance & Mode of transportation
1.	HSD/ LDO (in LPA)	410	200	610	Local Market	10 km by Road
2.	Fine Coal (TPD) *345 Working days	180	203	383	JSW Steel Limited	5 km by Rail/Road

12 Details of Plant and Machinery with capacity/ Technology used In table below.

S.No.	Unit	Capacity	
		Existing plant (6 MTPA cement)	Proposed Upgradation in Capacity (6 MTPA Cement)
Capacity of Equipment			
1	Roller press	4 X 90 TPH	-
2	Vertical Roller Mill	1 X 90 TPH, 1 x 275 TPH	2 X 425
Slag Raw Material Handling			
3	Stacker	2 X 800 TPH	1 X 800 TPH
4	Reclaimer	2 X 600 TPH	1 X 600 TPH
5	Blender	2 X 250 TPH	-
Packing Plant			
6	Roto Packer	5 X 240 TPH, 1 X 120 TPH	2 X 240 TPH
7	Stationary Packer	2 X 30 TPH	-
8	Bulker Loading Capacity	5 X 150 TPH	-
9	Silos	3 X 10000 T, 1 X 6000 T 3 X 5000 T, 1 X 2500 T	3 X 10000 T

Hot Air Generator		
10	Hot Air Generator	1 X 16 Mkal, 2 X 32 Mkal, 2 X 50 MKcal
13	WATER REQUIREMENT	
	Construction Phase	
	Source of water	Reservoir of JSW Steel Limited
	Quantity of water for Construction in KLD	100 KLD
	Quantity of water for Domestic Purpose in KLD	73 KLD
	Waste water generation in KLD	58 KLD
	Treatment facility proposed and scheme of disposal of treated water	120 KLD Capacity MBBR Technology STP
	Operational Phase	
	Source of water	Reservoir of M/s. JSW Steel Ltd
	Total Requirement of Water in KLD	Fresh 1365 KLD
		Recycled 60 KLD
		Total 1425
	Requirement of water for industrial purpose/ production in KLD	Fresh 1110KLD
		Recycled --
		Total 1110 KLD
	Requirement of water for domestic purpose in KLD	Fresh 140KLD
		Recycled -
		Total 140 KLD
	Wastewater generation in KLD	Industrial effluent -
		Domestic sewage 75KLD
		Total 75 KLD
	ETP/STP capacity	STP -120 KLD
	Technology employed for Treatment	MBBR Technology
14	Infrastructure for Rainwater harvesting	There are three rainwater recharge pits inside the plant boundary and the total recharge from the pits is 332 m3
15	AIR POLLUTION SOURCES & CONTROL MEASURES	
a	Sources of Air pollution	Cement Mill, DG Set, Packing Plant, Raw material handling, Transportation of raw material & products.
b	Composition of Emissions	PM, SO ₂ , NO _x , etc.
c	Air pollution control measures proposed and technology	✓ Periodic monitoring of all the stack emissions is being / will be done to monitor the pollutant concentrations.

	employed	<ul style="list-style-type: none"> ✓ Maintenance of the Bag Filters includes replacement of bags, checking the performance of the Bag House, maintenance of ID fans etc. is being / will be done. The information on performance of Bag House in relation to the process / production conditions is being / will be collected to optimize the efficiency of Bag House. ✓ All the bag filters are being / will be designed for higher loads and gas flow, which can meet the prescribed standards. ✓ Transfer of clinker to the clinker silo is/ will be done through covered conveyor belt in a very controlled manner, while that of the fly ash to fly ash silo is/ will be done pneumatically from bulkers. This helps in reducing the fugitive emissions. ✓ This will be controlled by providing bag filters at all the transfer points. The Company will install efficient Bag filters at various material handling & transfer points to control fugitive dust emissions 			
Sl. No.	Source of air Pollution	Chimney height (m)	Constituents to be controlled	Toleranc Limits (mg/Nm ³)	Air pollution control equipment
Existing					
1	VRM -1 Stack	48.5	PM	30	Bag House
2	RP 1&2 Stack	55.0			
3	RP 3&4 Stack	55.0			
4	VRM – 2 Stack	52.4			
Proposed					
5	VRM – 3 Stack	52.4	PM	30	Bag House
6	VRM – 4 Stack	52.4			
Measures during Construction Phase:					
<ul style="list-style-type: none"> ➤ The construction site will be marked and proper PPE will be provided to the workers. ➤ Sprinkling of water on construction site and on unpaved roads will be done during the expansion of grinding unit. o Construction equipment and machineries having PUC certificate will be deployed during the activity to reduce exhaust emission. ➤ Material will be loaded and unloaded by trained workers and proper enclosures will be provided during loading and unloading the vehicles and the materials will be stored at their designated place with suitable covering. ➤ All the vehicles carrying raw materials for construction will be properly covered with tarpaulin to abolish the fugitive emissions along with proper upkeep and maintenance of vehicles. 					

	<ul style="list-style-type: none"> ➤ In addition to above, dust will also be generated from stockpiles of construction material (aggregates and sand). To prevent this, stockpiles will be aligned properly with slopes stabilized and maximum height will be maintained. <p>Measures during Operation Phase:</p> <ul style="list-style-type: none"> ➤ Periodic monitoring of all the stack emissions is being / will be done to monitor the pollutant concentrations. ➤ Maintenance of the Bag Filters includes replacement of bags, checking the performance of the Bag House, maintenance of ID fans etc. is being / will be done. The information on performance of Bag House in relation to the process / production conditions is being / will be collected to optimize the efficiency of Bag House. ➤ All the bag filters are being / will be designed for higher loads and gas flow, which can meet the prescribed standards. ➤ Transfer of clinker to the clinker silo is/ will be done through covered conveyor belt in a very controlled manner, while that of the fly ash to fly ash silo is/ will be done pneumatically from bulkers. This helps in reducing the fugitive emissions. ➤ This will be controlled by providing bag filters at all the transfer points. The Company will install efficient Bag filters at various material handling & transfer points to control fugitive dust emissions 	
16	NOISE POLLUTION SOURCES & CONTROL MEASURES	
a	Sources of Noise pollution	Existing- DG set, motors, Cement Mills, compressor Proposed- DG set, motors, Cement Mills, compressor
b	Expected levels of Noise pollution in dB	Day time- 75 Night Time- 70
c	Noise pollution control measures proposed	<p>Construction Phase:</p> <ul style="list-style-type: none"> ➤ Equipment will be kept in good condition to keep the noise level within 90 dB (A). ➤ Workers will be provided necessary protective equipment e.g., ear plugs, earmuffs. <p>Operation Phase:</p> <ul style="list-style-type: none"> ➤ Walls and ceilings of the concerned buildings has been/will be lined with sound absorbing materials ➤ Properly insulated enclosures have been provided to D.G. Sets. ➤ Proper maintenance, oiling and greasing of machines at regular intervals is being/will be done to reduce generation of noise. ➤ Personal Protective Equipment like earplugs and earmuffs have been/will be provided to the workers exposed to high noise level. ➤ Greenbelt of appropriate width at the project boundary have been/will be developed.

		➤ Regular monitoring of noise level is being/will be carried out and corrective measures in concerned machinery will be adopted accordingly to the possible extent.			
17	WASTE MANAGEMENT				
1	Operational Phase				
a	Quantity of Solid waste generated per day and their disposal	Dust	1710 TPD		
		STP Sludge	0.0004 TPD		
b	Hazardous waste generation per day and their disposal				
Category of HW	Type/ Name of HW	Quantity			Disposal Method
		Existing	Proposed	Total	
5.1	Used /Spent Oil (KL/A)	5.2	5.2	10.4	Is being / will be sold to the CPCB/ SPCB authorized recyclers.
5.2	Waste Residue containing Oil (TPA)	2	2	4	
33.1	Empty barrels/ Containers/ liners contaminated with hazardous chemicals/ wastes (No's)	200	200	400	
33.2	Contaminated cotton rags or other cleaning materials (TPA)	1	1	2	
-	E- Waste	0.2	0.3	0.5 TPA	
		Disposed is being/will be sent to registered vendors as per E-Waste Management Rules, 2020.			
18	POWER REQUIREMENT				
a	Total Power Requirement in the Operational Phase with source	70 MW (Source: M/s. JSW Energy Ltd. and D.G. Set (for emergency power back-up purpose)			
b	Numbers of DG set and capacity in KVA for Standby Power Supply	1070 kVa			
c	Details of Fuel used with	Given below			

	purpose such as boilers, DG, Furnace, TFH, Incinerator Set etc.,				
	Purpose	Name of Fuel	Total After Expansion Quantity	Calorific value (Kcal./kg)	Source, Distance & Mode of transportation
	D.G. Sets	HSD/ LDO (in LPA)	610	-	Local Market 10 km by Road
	HAG	Fine Coal (in Million TPA)	0.132	5800-6000	JSW Steel Limited 5 km by Rail/Road
d	Energy conservation plan and Percentage of savings including plan for utilization of solar energy as per ECBC 2007		<ul style="list-style-type: none"> • Procurement of energy efficient machineries and new technologies. • Energy Audits will be conducted at regular intervals. • Power saving by interlocking of Equipment. • APFC (Automatic Power Factor Control) panel for HT and LT line to improve power factor (Unity) of the system. • Minimizing idle running of vehicle, machines and electrical appliances. • Optimizing loads and periodic preventive maintenance and lubrication. • Prevention of leakages of compressed air. • Installation of Solar based LED lights instead of conventional lighting in the unit. • Energy saving by using day light by installing light pipe and using transparent sheet [day light] in Workshop, Store & parking yard • Switching off unnecessary lights by micro based timer. • Automatic Star Delta starter for load varying application like conveyer belts etc. • Installation of Variable Frequency Drive for all the auxiliary bag filter fans for energy saving. • Installation of power less bag diverters for packing plant instead of conventional motorized bag diverters. • Internal & external training and awareness programs on energy conservation 		

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20	EMP Construction phase & operation phase with CER cost.		
	S. No.	Particulars	Capital cost (INR in Crores)
			Recurring cost (INR in Crores / annum)
	1.	Air Pollution Control Systems (BagHouseofcementmills, CoveredSheds–Coal and Gypsum, Bagfilters at material transfer points & grinding System, Internal Concrete Roads, Approach Road, Road Sweeping vacuum machines etc.,)	139.97
	2.	Sewage Treatment Plant/Water Treatment Plant	0.53
	3.	Environmental Monitoring Instruments and Laboratory (CAAQMS Stations /Manual Stations /CEMS /Flue gas Analysers /Flow Meters /DWLR /Lab Equipment's)	3.5
	4.	Energy conservation measures (Variable Frequency Drives and Solar Street lights	2.97
	5.	Rainwater Harvesting	0.20
	6.	Green belt Development & maintenance	3.70
	7.	OHS and Risk Management	2.0
	8.	CER cost	12.85
		Total	165.72
			6.665
21	No of Trees	31,410 No's	
22	Employment details	2710 No's	

(Vijay Mohan Raj V)
Member Secretary
SEIAA Karnataka

09/08/24