



File No: EC/SEIAA/2024-25/3147/2024

Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), JHARKHAND)



Dated 19/06/2024



To,

Dr. K.V. Reddy
UltraTech Cement Limited
Ahura Centre, 1st Floor, 'A' Wing, Mahakali Caves Road, Andheri (E), Mumbai- 400 093 Ahura
Centre, 1st Floor, 'A' Wing, Mahakali Caves Road, Andheri (E), Mumbai- 400 093, Mumbai,
MUMBAI, MAHARASHTRA, Ahura Centre, 1st Floor, 'A' Wing, Mahakali Cave, 400093
kvijender.reddy@adityabirla.com

Subject: Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding.

Sir/Madam,

This is in reference to your application for Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding in respect of project Expansion in Cement Production Capacity from 0.528 Million TPA to 4.6 Million TPA (Expansion in existing Cement Mill from 0.528 to 0.60 Million TPA and additional Cement Mill of 4.0 Million TPA) at Patratu Industrial Area, Villages: Katia & Solia, Tehsil: Patratu, District: Ramgarh (Jharkhand) by M/s. UltraTech Cement Ltd. (Unit: Patratu Cement Works) submitted to Ministry vide proposal number SIA/JH/IND1/476272/2024 dated 29/05/2024.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO24B1103JH5241791N
(ii) File No.	EC/SEIAA/2024-25/3147/2024
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	3(b) Cement plants Expansion in Cement Production Capacity from 0.528 Million TPA to 4.6 Million TPA (Expansion in existing Cement Mill from 0.528 to 0.60 Million TPA and additional Cement Mill of 4.0 Million TPA) at Patratu Industrial Area, Villages: Katia & Solia, Tehsil: Patratu, District: Ramgarh (Jharkhand) by M/s. UltraTech Cement Ltd. (Unit: Patratu Cement Works)
(vii) Name of Project	UltraTech Cement Limited
(viii) Name of Company/Organization	RAMGARH, JHARKHAND
(ix) Location of Project (District, State)	

(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A and B) were submitted to the Ministry for an appraisal by the State Environment Impact Assessment Authority(SEIAA) Appraisal Committee (SEIAA) in the Ministry under the provision of EIA notification 2006 and its subsequent amendments.
4. The above-mentioned proposal has been considered by State Environment Impact Assessment Authority(SEIAA) Appraisal Committee of SEIAA in the meeting held on 07/06/2024. The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B, Part C EIA, EMP)] are available on PARIVESH portal which can be accessed by scanning the QR Code above.
5. The brief about configuration of plant/equipment, products and byproducts and salient features of the project along with environment settings, 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 07/06/2024, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the proposal for grant of Terms of Reference under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of specific and general conditions as detailed in Annexure (2).
7. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the State Environment Impact Assessment Authority(SEIAA) Appraisal Committee hereby decided to grant Terms of Reference for instant proposal of M/s. Dr. K.V. Reddy under the provisions of EIA Notification, 2006 and as amended thereof.
8. The Ministry reserves the right to stipulate additional conditions, if found necessary.
9. The Terms of Reference 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. This issues with the approval of the Competent Authority.

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Annexure 1

Standard Terms of Reference for Industrial Projects - 1

1. Preliminary Requirements

S. No	Terms of Reference
1.1	EIA/EMP report cover page shall consists of project title with location, applicable schedule of the EIA Notification, 2006, ToR letter No. with date, study period along with EIA consultant & laboratory details with QCI/NABET/NABL accreditation certificate detail.
1.2	Besides, following points shall be compiled as per QCI/NABET norms: a. Disclaimer by the EIA consultant. b. Declaration by the Functional Area Experts contributed to the EIA study and declaration by the head of the accredited consultant organization/authorized person. c. Undertaking

S. No	Terms of Reference
	by the project proponent owning the contents (information and data) of the EIA/EMP report. d. Undertaking by the EIA consultant regarding compliance of ToR issued by MoEF&CC. e. Consultant shall submit the Plagiarism Certificate for the EIA/EMP Report.

2. Executive Summary

S. No	Terms of Reference
2.1	Table of Contents of the EIA report including list of tables/figures/annexures/abbreviations/symbols/notations.
2.2	Point wise compliance to the ToR issued by MoEF&CC.

2.1 Introduction

S. No	Terms of Reference
2.1.1	Name of the project along with applicable schedule and category as per EIA, 2006.
2.1.2	Location and accessibility

2.2 Project Description

S. No	Terms of Reference
2.2.1	Resource requirements (Land; water; fuel; manpower)
2.2.2	Operational activity
2.2.3	Key pollution concerns

2.3 Baseline Environment Studies

S. No	Terms of Reference
2.3.1	Ambient air quality

Additional Terms of Reference

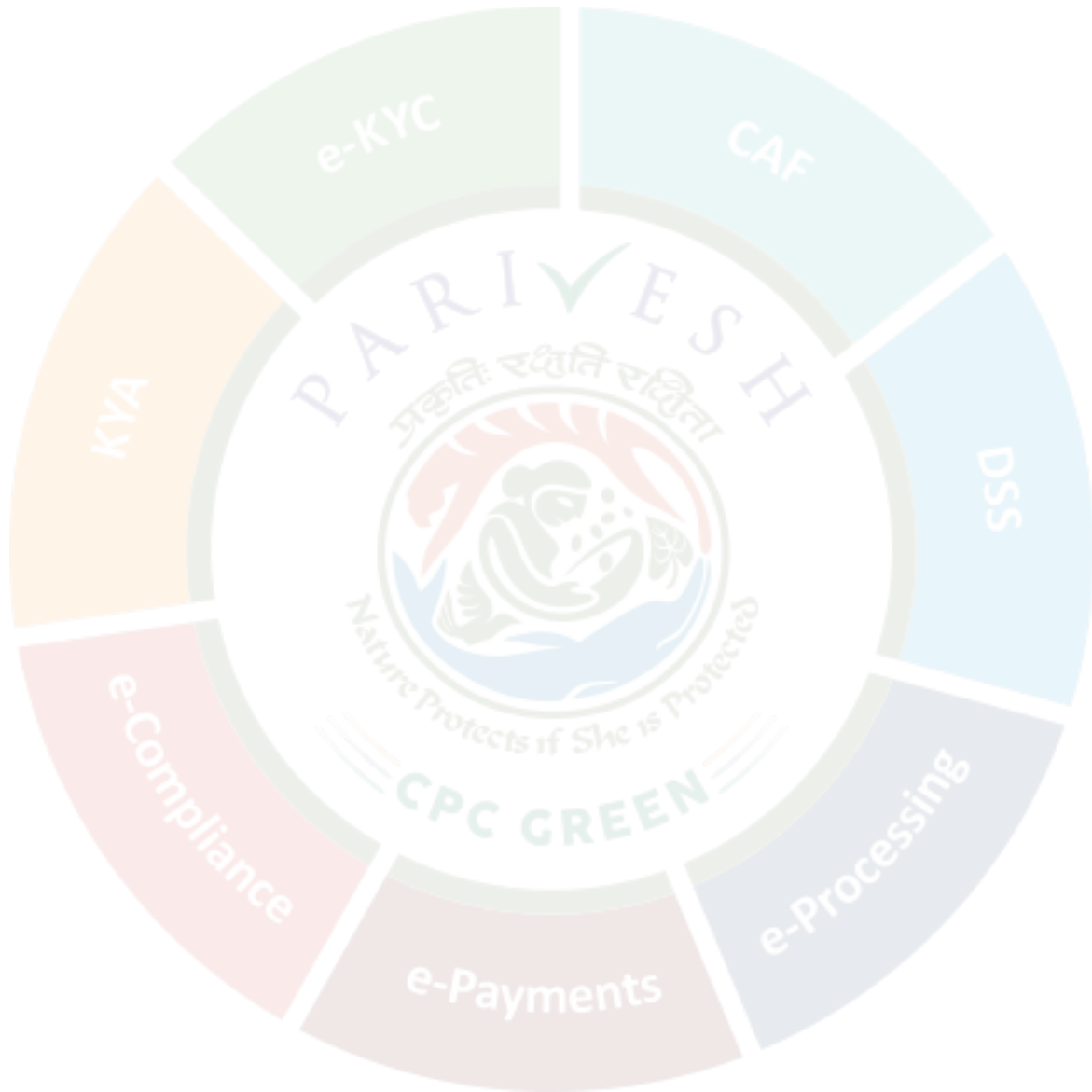
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Annexure 2

Details of Products & By-products

Name of the product /By-product	Product / By-product	Existing	Proposed	Total	Unit	Mode of Transport / Transmission
Cement	Cement	0.528	4.072	4.6	Million TPA	Road

Name of the product /By-product	Product / By-product	Existing	Proposed	Total	Unit	Mode of Transport / Transmission
D.G. Sets	D.G. Sets	250	1500	1750	KVA	Captive Use





State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834 004

E-mail: msscias.jhk@gmail.com / chr-seiaajhr@gov.in

website: www.jseiaa.org

Letter No.-EC/SEIAA/2024-25/3147/2024/

Ranchi, Date:

To: **M/s UltraTech Cement Limited,**
Dr. K.V. Reddy,
(Joint President & Corporate Head)
'B' – Wing, Ahura Centre, 1st Floor,
Mahakali Caves Road,
Andheri (East) Mumbai, Maharashtra : 400093.

Sub: Prescribing of ToR to “Expansion in Cement production capacity from 0.528 Million TPA to 4.6 Million TPA (Expansion in existing Cement Mill from 0.528 to 0.60 Million TPA an additional Cement Mill of 4.0 Million TPA) by M/s UltraTech Cement Ltd. (Unit : Patratu Cement Works) at Patratu Industrial Area, Villages : Katia & Solia, Tehsil : Patratu, Distt. : Ramgarh, Jharkhand” (Proposal No. : SIA/JH/IND1/476272/2024) - regarding.

Ref: Your application no.- Nil, dated – 29.05.2024.

Sir,

It is in reference to the project “Expansion in Cement production capacity from 0.528 Million TPA to 4.6 Million TPA (Expansion in existing Cement Mill from 0.528 to 0.60 Million TPA an additional Cement Mill of 4.0 Million TPA) by M/s UltraTech Cement Ltd. (Unit : Patratu Cement Works) at Patratu Industrial Area, Villages : Katia & Solia, Tehsil : Patratu, Distt. : Ramgarh, Jharkhand” submitted by you for seeking Terms of Reference (ToR).

This is an expansion project which has been taken for appraisal on 01.06.2024.

Project Category : B-1 - The proposal was considered by the committee to determine the “Terms of Reference (ToR)” for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendments thereafter. For this purpose the Project Proponent has submitted the prescribed Form - I & PFR the proposed project falls under item 3 (b) **Cement Plants** as per EIA Notification, 2006.

This proposal is for Expansion in Cement Production Capacity from 0.528 Million TPA to 4.6 Million TPA (Expansion in existing Cement Mill from 0.528 to 0.60 Million TPA and

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additional Cement Mill of 4.0 Million TPA) at Patratu Industrial Area, Villages: Katia & Solia, Tehsil: Patratu, District: Ramgarh (Jharkhand) by M/s. UltraTech Cement Ltd. (Unit: Patratu Cement Works).

Earlier, the existing Cement plant was operating by M/s. Burnpur Cement Ltd. The company had obtained NOC from Jharkhand State Pollution Control Board vide ref. no. JA/2655/W/217 dated 25th Jan., 2007 for Clinker - 800 TPD & Cement (OPC, PSC & PPC) - 800 TPD.

Thereafter, Environmental Clearance was obtained from MoEFCC, New Delhi vide letter no. J-11011/45/2009-IA. II (I) dated 30th Dec., 2010 for Cement Plant (0.528 Million TPA) at Patratu Industrial Area, District: Ramgarh (Jharkhand) by M/s. Burnpur Cement Ltd.

Thereafter, In accordance with the SARFAESI Actions under Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 read with Security Interest (Enforcement) Rules, 2002, UltraTech has taken control over the assets of Burnpur Cement Limited located at Patratu Industrial Area, Villages - Katia & Solia, District - Ramgarh, Jharkhand on November 29, 2023 (“Transfer Date”) and now Burnpur Cement Limited is now a wholly owned unit of UltraTech Cement Limited.

Transfer EC from Burnpur Cement Ltd. to UltraTech Cement Ltd. has been obtained from SEIAA, Jharkhand on 28th May, 2024.

Project Proposal

S. No.	Particulars	Unit	Existing Capacity	Additional Capacity		Total capacity after Expansion
				Existing Line - I (By Optimization)	New Line - II	
1.	Cement (OPC - 10%, PPC - 20% and Composite Cement - 70%)	Million TPA	0.528	0.072	4.0	4.6
2.	D.G. Sets	KVA	250	Nil	2 x 750	1750

Salient Features of the Project

S. No.	PARTICULARS	DETAILS
1.	Nature of the Project	Expansion Project
2.	Size of the Project	✓ Cement (OPC/PPC /PCC) {0.528 to 4.6 Million TPA} ✓ D.G. Set (250 to 1750 KVA)
3.	Category of the Project	As per EIA Notification dated 14 th Sept., 2006 & as amended thereof; this project (Standalone Grinding Unit) falls under Category - “B”, under S. No. 3 (Material Production). Project Activity ‘3 (b)’ Cement Plants.

S. No.	PARTICULARS	DETAILS
4.	Location Details	
	Khasra Nos	Khasra List and Khasra map along with the complete land documents of 31.56 ha (78 Acre)
	Villages	Katia & Solia
	Tehsil	Patratu
	District	Ramgarh
	State	Jharkhand
	Latitude	Plant: 23°37'12.62" to 23°37'09.02" Administrative Building: 23°37'01.33" to 23°37'07.57"
	Longitude	Plant: 85°16'17.31" to 85°16'42.21" Administrative Building: 85°16'22.45" to 85°16'29.61"
	Toposheet No.	Core Zone: (F45B6)73E/6 Buffer Zone: (F45B6)73E/6 & (F45B2)73E/2
5.	Area Details	
i	Total Plant Area	Total plant area is 31.56 ha; expansion will be done within existing plant premises.
ii	Greenbelt / Plantation Area (ha)	Total Greenbelt area will be 10.45 ha, (Existing - 8.09 ha has already been done i.e. 33% of the existing plant area as per EC and Additional - 2.40 ha will be developed i.e. 33% of the additional area of 7.28 ha.
6.	Environmental Setting Details (with approximate aerial distance from the nearest plant boundary and direction from the centre)	
1.	Nearest Village	<ul style="list-style-type: none"> ○ Solia (0.6 km in SW direction) ○ Katia (0.75 km in NNW direction)
2.	Nearest Town	Patratu (5.0 km in NE direction)
3.	Nearest City	Ranchi (25.0 km in South direction)
5.	Nearest National Highway / State Highway	SH - 2 (0.8 km in SE direction)
6.	Nearest Railway station	<ul style="list-style-type: none"> ○ Patratu Railway Station (5.5 km in NE direction) ○ Tokishud Railway Station (7.0 km in NW direction) ○ Bhurkhunda Railway Stations (9.5 km in ENE direction)
7.	Nearest Airport	Birsa Munda Airport, Ranchi (35.0 km in South direction)
8.	National Parks, Wildlife Sanctuaries, Biosphere Reserves within 10 km radius	No National Park, Wildlife Sanctuary, Biosphere Reserve falls within the 10 km radius area of the plant site.
9.	Reserve / Protected Forest	Following Protected Forest falls within 10 km radius study

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S. No.	PARTICULARS	DETAILS								
	within 10 km radius	area <ul style="list-style-type: none"> ▪ Koto PF (1.0 km in NW direction) ▪ Protected Forest (3.0 km in North direction) ▪ Protected Forest (4.0 km in East direction) ▪ Protected Forest (4.0 km in ESE direction) ▪ Protected Forest (4.0 km in West direction) ▪ Lem PF (5.0 km in SE direction) ▪ Jarad PF (5.0 km in SE direction) ▪ Ghaghra PF (5.5 km in East direction) ▪ Bicha PF (6.2 km in SE direction) ▪ Protected Forest (6.5 km in NNE direction) ▪ Tokishud PF (6.5 km in North direction) ▪ Sankul PF (6.5 km in NNE direction) ▪ Protected Forest (7.0 km in ENE direction) ▪ Hariharpur PF (7.0 km in ESE direction) ▪ Rarha PF (7.0 km in SSE direction) 								
10.	Water Bodies (within 10 km radius)	<ul style="list-style-type: none"> ▪ Naikari Nadi (0.8 km in East direction) ▪ Patratu Lake (1.0 km in SE direction) ▪ Damodar River (7.0 km in North direction) ▪ Chiruwa Nala (7.0 km in SW direction) 								
11.	Archaeologically Important Site	None within 10 km radius study area								
12.	Seismic Zone	Zone II [as per IS 1893 (Part-I): 2002]								
13.	Cost Details									
	Total Cost of the Expansion Project	Rs. 500 Crores								
	Cost for Environment Management Plan	Capital Cost: Rs. 50.0 Crores Recurring Cost: Rs. 5.0 Crore / annum								
14.	Basic Requirements of the Project									
	Water Requirement (KLD)	<table border="1"> <thead> <tr> <th>Existing</th> <th>Additional</th> <th>Total</th> <th>Source</th> </tr> </thead> <tbody> <tr> <td>100</td> <td>200</td> <td>300</td> <td>Ground Water/Rainwater Harvesting</td> </tr> </tbody> </table>	Existing	Additional	Total	Source	100	200	300	Ground Water/Rainwater Harvesting
Existing	Additional	Total	Source							
100	200	300	Ground Water/Rainwater Harvesting							
	Power Requirement (MW)	<table border="1"> <tbody> <tr> <td>3.6</td> <td>20</td> <td>23.6</td> <td>Damodar Valley Company Ltd., D.G. Sets for Emergency Back-up</td> </tr> </tbody> </table>	3.6	20	23.6	Damodar Valley Company Ltd., D.G. Sets for Emergency Back-up				
3.6	20	23.6	Damodar Valley Company Ltd., D.G. Sets for Emergency Back-up							
	Manpower Requirement (No. of persons)									

S. No.	PARTICULARS	DETAILS			
	Construction Phase				Preference is being/will be given to local people as per their eligibility, qualification & skills.
	Regular	-	10	10	
	Contractual	-	500	500	
	Operation Phase				
	Regular	83	15	98	
	Contractual	109	70	179	
	Total	192	595	787	

Land Details :

Plot No. A-8P, 9, 10, I 1, B-38, 39, 40, C-7P, B,9,10,11,XP,Block-D & Block-E, Part in the Patratu Industrial Area, Consisting of Revenue Surevy Nos, 24P,25P,26,27,28P,29,30P,31,32P,33P,35P, 49P, 50, 51P ,52P ,71P, 2332P, 2333, 2334, 2335P, 2336P, 2337, 2339, 2340, 2341P, 2343P, 2344, 2345, 2346, 2347, 2348P, 2349, 2350P, 2351P, 2352P, 2353P, 2354, 2355, 2356, 2357, 2358, 2359P, 2360, 2361, 2362, 2363, 2364, 2365, 2366P, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374P, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2385P, 2386P, 2387, 2388, 2389, 2390, 2391, 2392P, 2481P, 2482P, 2485P, 2486P, 2487, 2488, 2489, 2490, 2491, 2492, 2493P, 2394P, 2240P, 35P, 36P

Scope of Proposed Expansion Project

S. No.	Unit	Major facilities and associated activities proposed-
Expansion by Process optimization		
1.	Existing Line - I	<ul style="list-style-type: none"> - Cement Mill (Ball Mill) - Storage Facilities for Raw Materials and Products (Covered Sheds, Silos) - Packing Plant - Truck Tipplers - Truck Parking Area - Hot Air Generator
2.	Process Optimisation in Line - I	<ul style="list-style-type: none"> - Increase in mill grinding media filling from 22% to 24% by adding more grinding media into mill which improves its grinding efficiency and reduced retention time of raw material to product. - Increase in mill air velocity by optimizing mill vent fan so the fine grounded material leaves mill faster and further fresh feed is pushed into mill.
New Installation		
3.	New Line - II	- Cement Mill (VRM)

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S. No.	Unit	Major facilities and associated activities proposed-
Expansion by Process optimization		
		<ul style="list-style-type: none"> - Packing Plant - Storage Facilities for Raw Materials and Products (Covered Sheds, Silos) - Packing Plant - Truck Tipplers - Truck Parking Area - Hot Air Generator
4.	Other Associated facilities	<ul style="list-style-type: none"> - Weigh Bridge - Diesel Generator with storage of fuel - STP (15 KLD) - RMC Plant for construction activity

Raw Material Requirement - OPC (10%)

S. No.	Name of Raw Material	Quantity (Million TPA)			Source	Distance & Mode of Transportation
		Existing	Additional	Total		
1.	Clinker	0.050	0.387	0.437	Hirmi Cement Works, Rawan Cement Works, Kukurdih Cement Works and other UTCL Units	450 km by Rail then 13 km by Road
2.	Gypsum	0.00264	0.020	0.023	Chemical - Paradip Port Mineral - Mines in Rajasthan	600 km Rail then 13 km by Road

RAW MATERIAL CONSUMPTION - PPC (20%)

S. No.	Name of Raw Material	Quantity (Million TPA)			Source	Distance & Mode of Transportation
		Existing	Additional	Total		
1.	Clinker	0.0634	0.4486	0.552	Hirmi Cement Works, Rawan Cement Works, Kukurdih Cement Works and other UTCL Units	450 km by Rail then 13 km by Road
2.	Gypsum	0.005	0.0364	0.414	Chemical - Paradip Port Mineral - Mines in Rajasthan	600 km Rail then 13 km by Road

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3.	Fly ash	0.036	0.286	0.322	Koderma Thermal Power Plant, Patratu Thermal Power Station, IPL Power Plant & other nearby sources	135 km by Road
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RAW MATERIAL CONSUMPTION - COMPOSITE CEMENT (70%)

S. No.	Name of Raw Material	Quantity (Million TPA)			Source	Distance & Mode of Transportation
		Existing	Additional	Total		
1.	Clinker	0.118	0.912	1.030	Hirmi Cement Works, Rawan Cement Works, Kukurdih Cement Works and other UTCL Units	450 km by Rail then 13 km by Road
2.	Gypsum	0.0184	0.1426	0.161	Chemical - Paradip Port Mineral - Mines in Rajasthan	600 km Rail then 13 km by Road
3.	Fly ash	0.1145	0.8837	0.9982	Koderma Thermal Power Plant, Patratu Thermal Power Station, IPL Power Plant & other nearby sources	135 km by Road
4.	Slag	0.1182	0.9058	1.024	Steel Plants in Jharkhand - Bokaro Steel Plant, Tata Steel	120 km by Road

RAW MATERIAL CONSUMPTION MAXIMUM

S. No.	Name of Raw Material	Quantity (Million TPA)			Source	Distance & Mode of Transportation
		Existing	Additional	Total		
1.	Clinker	0.312	3.8	4.112	Hirmi Cement Works, Rawan Cement Works, Kukurdih Cement Works and other UTCL Units	450 km by Rail then 13 km by Road
2.	Gypsum	0.021	0.2	0.221	Chemical - Paradip Port Mineral - Mines in Rajasthan	600 km Rail then 13 km by Road

S. No.	Name of Raw Material	Quantity (Million TPA)			Source	Distance & Mode of Transportation
		Existing	Additional	Total		
3.	Fly ash	0.063	1.4	1.463	Koderma Thermal Power Plant, Patratu Thermal Power Station, IPL Power Plant & other nearby sources	135 km by Road
4.	Slag	0.132	1.0	1.132	Steel Plants in Jharkhand - Bokaro Steel Plant, Tata Steel	120 km by Road

Fuel Requirement

S. No.	Name	Quantity (Million TPA)			Source	Distance & Mode of Transportation
		Existing	Additional	Total		
1.	Coal (Imported/Indigenous)	0.012	0.1	0.112	Mines in Jharkhand -CCL and CIL mines	300 km by Rail then 13 km by Road

Resources optimization/recycling and reuse envisaged in the project, if any, should be briefly outlined

- The proposed Grinding Unit is being/will be utilize waste generated from other industries mainly Fly Ash from Thermal Power Plant and Blast Furnace Slag from Steel Plant for manufacturing Cement. These waste products comprise of 35-65% of Raw materials this will minimize the clinker usages and ultimately will lead to sustainability.
- Dust collected from various pollution control equipment's like Bag house and Bag filters is being/ will be recycled into the process.
- Currently there is no STP, soak pits are utilized. 15 KLD STP of MBBR technology will be installed for treatment of waste water generated from Administrative Building/ Plant.
- Sludge from STP (~ 15 kg/month) will be used as manure in greenbelt development/ plantation.
- Domestic waste water (11 KLD) generated from the plant & the colony will be treated in STP (15 KLD capacity) and treated water will be re-used for greenbelt development.
- Water used for cooling is being / will be partially absorbed in the process and partially subjected to evaporation & recycling; hence, no wastewater is being/ will be discharged from the plant premises.

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- Water conservation measures implemented are like Permanent water sprinklers, use of air cooling in place of water cooling in process fans, Installation of screw compressors in place of conventional compressors.
- Roof top rainwater harvesting by recharge tube wells. Surface rainwater runoff available from roads, cemented area and open land inside the colony area shall be used for recharging through existing dug cum borewells/ dry tube wells.

Availability of water and its source, energy /power requirement and source should be given.

a) Water Requirement and Source

The total fresh water requirement for the existing plant is 100 KLD and additional requirement for proposed expansion will be 200 KLD; thus, total water requirement after proposed expansion project will be 300 KLD.

Source: Ground Water and Rainwater harvested.

Status of Approval:

- Permission for withdrawal of Ground Water 9.55 KLD *vide* Letter No. 21-4/667/CGWA/NOC/IND/REN/1/2023/8037 dated 24th July, 2023 which is currently used only for drinking purpose and remaining is being utilized from Rain water harvesting.
- Company will be apply fresh application for the additional water requirement.

Break- up of Total Water Requirement

Purpose	Requirement (KLD)			Source
	Existing	Additional	Total after Expansion	
Cement Plant	40	100	140	Ground Water / Rainwater harvested
Dust Suppression	30	50	80	
Drinking & Domestic	10	20	30	
Green Belt Development / Plantation	20	30	50	
TOTAL	100	200	300	

Land Use Planning (Break-up along with green belt etc.)

Total plant area is 31.56ha (Part - A 28.32 ha is for Plant Area & Part - B 3.0 ha is for Administrative Building). Present land use of the plant site is industrial. Total project area is 31.56ha (24.28 ha existing and 7.28ha additional), out of the total project area; 33% i.e., 10.45 ha area will be covered under greenbelt development & plantation.

However, at present Greenbelt / plantation have been done over an area of about 8.09 ha (33% of exiting plant area of 24.28 ha) and in additional area of 2.40 ha out of the total proposed plant area of 31.56ha greenbelt & plantation will be done.

Plant Area Break-up

S. No.	Particulars	Existing	Proposed	Total	% Area
1	Plant and Machineries (Existing)	2.53	-	2.53	8.08
2	Plant and Machineries (Proposed)	-	4.88	4.68	14.94
3	Greenbelt Area (33 % of total plant area)	8.09	2.40	10.45	33.37
4	Open Area	13.66		13.66	43.61
Total		24.28	7.28	31.56	100.00

Existing Clearances / Consents & Implementation Status

S. No.	Particulars	Granted Capacity	Implementation Status
A.	Environment Clearance (EC)		
1.	<ul style="list-style-type: none"> o EC from MoEFCC, New Delhi vide Letter No. J-11011/45/2009-IA. II (I) dated 30th Dec., 2010 o Extension of Validity of EC from SEIAA, Jharkhand vide letter no.- EC/SEIAA/2017-18/2068/2017/261 Ranchi dated 05th Nov. 2018 o Corrigendum in Extension of Validity of Environment Clearance form SEIAA, Jharkhand vide letter no.- EC/SEIAA/2017-18/2068/2017/186 Ranchi dated 30th April, 2019 	Clinker - 0.528 Million TPA Cement - 0.528 Million TPA (OPC, PSC, PCC & PPC)	Clinker - 0.264 Million TPA <i>(Currently not in operation)</i> Cement - 0.528 (OPC, PSC, PCC & PPC) Partially implemented
B.	Consent to Establish (CTE) / NOC		
1.	NOC from Jharkhand State Pollution Control Board (JSPCB) vide ref. no. JA/2655/W/217 dated 25 th Jan., 2007	Clinker: 800 TPD, OPC: 80 TPD, PSC: 400 TPD, PPC: 320 TPD	Implemented
2.	CTE for Cement (OPC, PSC, PCC & PPC) Production Capacity JSPCB vide letter No. JSPCB/HO/RNC/CTE-4963863/2020/223 dated 02 nd June, 2020	Cement (OPC, PSC, PCC & PPC) - 800 TPD	
C.	No Increase in Pollution Load		
1.	No increase in the Pollution Load certificate by change in product mix by inclusion of PCC along with the production of OPC, PPC & PSC dated 16 th March, 2020	Cement (OPC, PSC, PCC & PPC)- 800 TPD	Implemented

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S. No.	Particulars	Granted Capacity	Implementation Status
D.	Consent to Operate (CTO)		
1.	Consent to Operate (CTO) Vide JSPCB Consent Ref No. D-441(C) dated 20 th March, 2015	Cement - OPC: 80 TPD, PSC: 400 TPD, PPC: 320 TPD	Implemented
2.	Consent to Operate (CTO) Vide JSPCB Consent Ref No. D-2325(C) dated 02 nd Sept, 2015	Cement - OPC: 80 TPD, PSC: 400 TPD, PPC: 320 TPD and Clinker: 800 TPD	Implemented
3.	Consent to Operate (CTO) Vide JSPCB Consent Ref No. JSPCB/HO/RNC/CTO-526047/2016/153 dated 27 th June, 2016. Valid up to 31 st March, 2017.	Cement - OPC: 80 TPD, PSC: 400 TPD, PPC: 320 TPD and Clinker: 800 TPD	Implemented
4.	Consent to Operate (CTO) Vide JSPCB Consent Ref No. JSPCB/HO/RNC/CTO-1271759/2018 /770 dated 25 th April, 2018. Valid up to 31 st March, 2019.	Cement (OPC, PSC & PPC) - 800 TPD	Implemented
5.	Consent to Operate (CTO) Vide JSPCB Consent Ref No. JSPCB/HO/RNC/CTO-4370288/2019 /974 dated 10 th May, 2019. Valid up to 31 st March, 2020.	Cement (OPC, PSC, PCC & PPC)- 800 TPD	Implemented
6.	Consent to Operate (CTO) Vide JSPCB Consent vide Ref No. JSPCB/HO/RNC/CTO-8168156/ 2020 /1077. dated 4 th July, 2020 valid upto 30 th June, 2021.	Cement (OPC, PSC, PCC & PPC)- 800 TPD (in expansion)	Implemented
7.	Consent to Operate (CTO) Vide JSPCB Consent Ref No. JSPCB/HO/RNC/CTO-7726490/ 2020/ 907 dated 10 th June, 2020. Valid up to 31 st March, 2024.	Cement (OPC, PSC & PPC) - 800 TPD	Implemented
8.	Consent to Operate (CTO) from JSPCB vide their letter no. JSPCB/HO/RNC/CTO-10366082 /2022 /222 dated 27th Feb., 2022 valid upto 31st March, 2024.	Cement (OPC, PSC, PCC & PPC)- 1600 TPD (after expansion)	Implemented
9.	Consent to Operate (CTO) from JSPCB vide their letter no. JSPCB/HO/RNC/CTO-17945908/2024 /885 dated 18th May, 2024 valid upto 31st March, 2025.	Cement (OPC, PSC, PCC & PPC)- 1600 TPD (unexpended part)	Implemented

STATUTORY CLEARANCES :

1	Land docs	:	Ownership Land.
2	CO	:	The CO, Patratu vide letter no. 1730, dated 04.09.2018 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyani & Register II.
3	DFO Wild Life	:	DFO, Wildlife Hazaribagh vide letter no. 906, dated 17.05.2024 certified that the proposed project site is outside Eco Sensitive Zone of Hazaribagh Wildlife Sanctuary.
4	DFO Forest Distance	:	DFO, Ramgarh Forest Division vide letter no. 1006, dated 29.05.2024 certified that the distance of demarcated forest is 900 meters from project site.
5	Transfer of Environmental Clearance (EC)	:	Transfer of Environmental Clearance (EC) granted by SEIAA vide letter no. 74, dated 27.05.2024.

SEAC, Jharkhand has recommended the ToRs in its 113th meeting held on 30th, 31st May, 2024 & 01st, 02nd and 03rd June, 2024 for undertaking detailed EIA / EMP study and SEIAA, Jharkhand has granted the ToRs in its 113th meeting held on 07th & 08th June, 2024. The SEAC has recommended following conditions:

The TORs prescribed for undertaking detailed EIA study are as follows:

A. Standard Terms of Reference (ToR)

1. Executive Summary of the project.

2. Introduction

- i. Details of the EIA Consultant including NABET accreditation.
- ii. Information about the project proponent.
- iii. Importance and benefits of the project.

3. Specific Conditions:

- i. **The products to be manufacture must be clearly specified in the EIA / EMP report.**
- ii. **Complete material balance to be provided for all the input & output. Source of Raw Material, mode of transport along with storage detail for all raw material and all products.**
- iii. **Detailed water balance to be provided.**
- iv. **Details of all the waste generation in the project along with handling and management of the same.**



- v. **Primary study to be carried out for Socio Economy, Ecology & Bio-Diversity, Geology, Hydro-Geology etc.**
- vi. **Details of all the pollution control measures at railway siding, dust accumulation on the trees, control of noise at high noise generating equipments. Technical details of all bag house system to be installed or already existing.**
- vii. **Site specific wildlife conservation plan to be prepared and submit to the competent authority for approval.**
- viii. **Details of fire control management plan.**
- ix. **Detail risk & hazard study to be carried out and included in EIA / EMP report.**
- x. **Traffic study to be carried out along with management plan and included in EIA / EMP report.**
- xi. **All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants should be implemented.**
- xii. **All details of the existing plant is to be provided in EIA / EMP.**

4. Project Description

- i. Cost of project and time of completion.
- ii. Products with capacities for the proposed project.
- iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other chemicals and materials required with quantities and storage capacities
- vi. Details of Emission, effluents, hazardous waste generation and their management.
- vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided.
- ix. Hazard identification and details of proposed safety systems.
- x. Expansion/modernization proposals:
 - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment, Forest and Climate Change as per OM no. F.no. IA3-22/10/2022-IA.III [E 177258], dated 08th June, 2022 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /



existing operation of the project from SPCB shall be attached with the EIA-EMP report.

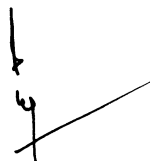
- b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification, 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

5. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places).
- iii. Details w.r.t. option analysis for selection of site
- iv. Co-ordinates (lat-long) of all four corners of the site. .
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired), government/ private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy.

6. Forest and Wildlife related issues (if applicable):

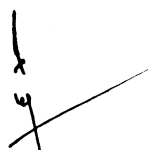
- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable).



- ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha).
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

7. Environmental Status:

- i. Determination of atmospheric inversion level at the project site and site-specific micro- meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF & CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF & CC. if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule- I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.



8. Impact and Environment Management Plan:

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling - in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control.
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 2500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.



- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

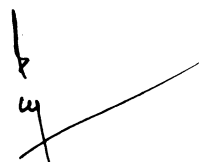
9. Occupational health:

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

10. Corporate Environment Policy:

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
 - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
 - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
- 11.** Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
- 12.** Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 13. Enterprise Social Commitment (ESC)**
- i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise







details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

14. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
15. A tabular chart with index for point wise compliance of above TOR.
16. Beside the above, the below mentioned general points should also be followed:
 - a. Beside the above, the below mentioned general points should also be followed.
 - b. All documents may be properly referenced with index and continuous page numbering
 - c. Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
 - d. Where the documents provided are in a language other than English, an English translation should be provided.
 - e. The questionnaire for environmental appraisal of LPG Bottling projects as prescribed by the Ministry shall also be filled and submitted.
 - f. All statutory clearances obtained for the project shall be included in the EIA report.
 - g. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
17. Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of SEIAA, Jharkhand with reasons for such changes and permission should be sought, as the TOR may also have to be altered.
18. The Prescribed ToRs is valid as per O.M. F. No. IA3-22/10/2022-IA.III[E177258], dated 08.06.2022. of MoEF&CC. Govt. of India.

B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR CEMENT PLANTS:

1. Limestone and coal linkage documents along with the status of environmental clearance of limestone and coal mines
2. Quantum of production of coal and limestone from coal & limestone mines and the projects they cater to;
3. For large Cement Units, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
4. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS

P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.

5. If the raw materials used have trace elements, an environment management plan shall also be included.
6. Plan for the implementation of the recommendations made for the cement plants in the CREP guidelines must be prepared.
7. Energy consumption per ton of clinker and cement grinding.
8. Provision of waste heat recovery boiler.
9. Arrangement for use of hazardous waste.

Sd/-
Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.

Dated: 09/06/2024

Memo No.-EC/SEIAA/2024-25/3147/2024/104

Copy to:

1. Member Secretary, Jharkhand State Pollution Control Board, Ranchi for information and necessary action.
2. Regional Office, Ministry of Environment, Forest and Climate Change, Govt. of India, 2nd Floor, Jharkhand State Housing Board (HQ), Harmu Chowk, Ranchi, Jharkhand – 834002.
3. Member Secretary, SEAC, Jharkhand, Ranchi for information and necessary action.

M 09/06/2024
Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.

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