F. No. J-11011/232/2016-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

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Dated:16th February, 2018

To,

The Director,
M/s OCL India Limited,
Village & Tehsil Rajgangpur,
District Sundergarh, Odisha-770017.

Subject: Proposed Cement Plant (Dalmia DSP Unit) - Clinker (3.0 MTPA), Cement (2.25 MTPA), WHRS (10 MW) and D.G. Set (1000 KVA) by M/s OCL India Limited located at Village & Tehsil Rajgangpur, District Sundergarh, Odisha – Environmental Clearance regarding.

Sir,

This has reference to your online application vide proposal no. **IA/OR/IND/59484/2016** dated **18th December 2017** along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category "A" of EIA Notification, 2006 and the proposal is appraised at Central level.

2.0 The proposed project **M/s OCL India Limited** located at Village & Tehsil: Rajgangpur, District: Sundergarh (Odisha) was initially received in the Ministry on 07th October 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC (I)] during its 12th meeting held on 28th October 2016 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 17th March 2017 vide letter no. J-11011/232/2016-IA.II(I).

3.0 The project of M/s. OCL India Limited located at Village & Tehsil: Rajgangpur, District: Sundergarh (Odisha) is for setting up of a new Cement Plant for production of Clinker (3.0 MTPA), Cement (2.25 MTPA), WHRS (15 MW) and D.G. Set (1000 KVA). The proposed capacity for the different products for new site area as below:

Sl. No	Name of Unit	Proposed Production Capacity
1	Clinker	3.0 MTPA
2	Cement	2.25 MTPA
3	WHRS	15 MW
4	D.G. Set	1000 KVA

4.0 Total land required for the project is 39.27 ha (97.06 acres); which is industrial land and totally under the possession of M/s. OCL India Limited. No forest land is involved. No River passes through the project area. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

5.0 The topography of the area is almost flat and reported to lies between 22° 11' 52.69"N to 22° 12' 18.28"N Latitude and 84° 34' 25.20" E to 84° 34' 50.62" E Longitude in Survey of India toposheet no. 73 B/12 at an elevation of about 220 - 260 m. The ground water level reported to ranges between 2.2 m to 8.8 m below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the stage of groundwater development in the area is reported to 34.4% and thereby, these are designated as Safe area.

6.0 No National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. The authenticated list of flora and fauna provided through the forest department (Divisional Forest Officer, Rourkela Division) reporting no presence of Schedule -I fauna in the study area [Annexure - 3(b) of Final EIA/EMP Report].

7.0 The raw materials required for the proposed project are Limestone, Chemical Gypsum, Mineral Gypsum, Fly ash, Clay and Granulated Slag. The proposed Cement Plant will be based on Dry Process Technology for Cement manufacturing with Pre-Heater and Pre-Calciner Technology. The cement manufacturing process, *inter alia*, include transport of excavated limestone from mine site via covered conveyer belt; Raw Mix Preparation & Homogenization; Fuel preparation (Coal/ Petcoke /AFR); Calcination; Clinkerization & storage; Cement Grinding, Packing & Dispatch; and Clinker dispatch to split grinding units depending upon the market condition, it is proposed to manufacture 2.25 MTPA Cement at the proposed site and part of the clinker is proposed to be sent to split located Grinding Unit. No waste will be generated during Cement manufacturing process.

8.0 The targeted production capacity of the Clinker (3.0 MTPA), Cement (2.25 MTPA), WHRS (15 MW) and D.G. Set (1000 KVA). Limestone will be sourced from the Captive Lanjiberna Limestone Mine and transported through covered conveyer belt.

9.0 Water requirement for the project is estimated at 1200 m^3/day; which will be sourced from Nakti Nallah. Permission for drawl of water from Nakti Nallah has been obtained from Sundergarh Irrigation Division, Sundergarhvide Agreement No. 19 dated 20th February 2015.

10.0 Total power requirement for the project is estimated as 45 MW; which will be sourced from State Electricity Board, WHRS, Solar Power Plant and D.G. Set (for back-up).

11.0 Baseline Environmental Studies were conducted during Post-Monsoon Season i.e. from Oct., to Dec., 2016. Ambient air quality monitoring was carried out at 8 locations during 01st Oct., 2016 to 31st Dec., 2016and the data submitted indicated: PM_{10} (56.7 to 86.6 $\mu g/m^3$), $PM_{2.5}$ (21.8 to 40.2 $\mu g/m^3$), SO_2 (6.1 to 11.8 $\mu g/m^3$) and NO_x (10.2 to 26.3 $\mu g/m^3$). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 0.31 $\mu g/m^3$ with respect to the PM, 0.71 $\mu g/m^3$ with respect to the SO_2, 2.11 $\mu g/m^3$ with respect to the NO_x.

12.0 Ground water quality has been monitored at 8 locations in the study area and analyzed. pH: 7.03 to 7.43, Total Hardness: 116 to 348 mg/l, Chlorides: 27.93 to 124.94 mg/l, Fluoride: 0.24 to 0.48 mg/l. Heavy metals are within the limits. Surface water samples were analyzed

from 10 locations. pH: 7.13 to 7.96, DO: 4.10to 4.90 mg/l,BOD: 5.80 to 12.80 mg/l, COD: 16.28 to 37.12 mg/l.

13.0 Noise levels are in the range of 48.2 to 62.8 Leq dB(A) for day time and 40.5 to 53.7Leq dB(A) for night time.

14.0 It has been reported that there is no population / habitation in the core zone of the project. No R&R is involved.

15.0 No solid waste will be generated in the cement manufacturing process. Dust collected from various air pollution control equipment will be totally recycled back into the process. STP Sludge will be utilized as manure for greenbelt development within the plant premises. Used oil & grease and empty barrels will be generated from plant machinery / Gear boxes; which will be sold out to the CPCB authorized recycler / coprocessing in kiln. It has been envisaged that an area of 12.95 ha will be developed as greenbelt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

16.0 This is proposed Cement Plant and Consent to Establish / Operate will be obtained from Odisha State Pollution Control Board after getting Environmental Clearance from MoEFCC, New Delhi.

17.0 Public hearing of the project was held on 20thSeptember, 2017 at Gopabandhu High School, Rajgangpur under Rajgangpur Block of Sundergarh District, Odishaunder the chairmanship of Shri Bhaskar Chandra Turuk (OAS, Additional District Magistrate, Sundergarh) for proposed Cement Project having production capacity of Clinker (3.0 MTPA), Cement (2.25 MTPA), WHRS (15 MW) and D.G. Set (1000 KVA) under the Odisha State Pollution Control Board. The issues raised during public hearing are employment, environment, education, health, plantation, CSR activities related etc.

18.0 An amount of Rs. 46 Crores (2.5% of the Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues. The details of ESC proposed are as follows:

S. No.	Major activities	1st Year	2nd Year	3rd Year	4th Year	5th Year	Total Amount in Rs. Lakhs
	Education						
1	Running of Remedial Education Centers	25	30	20	13	13	101
2	Maintenance & renovation of Theme park	5	5	7	5	5	27
3	Transportation facility for school students	5	10	8	7	7	37
4	Infrastructure related support to schools such as construction of class rooms, anagwadis, teaching aid materials etc.	65	130	140	75	85	495
	Sub Total	***100***	***175***	***175***	***100***	***110***	***660***
	Health & Sanitation						

S. No.	Major activities	1st Year	2nd Year	3rd Year	4th Year	5th Year	Total Amount in Rs. Lakhs
1	Support to Rajgangpur CHC for enabling quality health services	40	50	50	40	40	220
2	Mobile Ambulance	10	10	10	10	10	50
3	Life Skill Education for Adolescent Girls	10	10	10	10	10	50
4	Infrasturctural support to existing hospitals	75	120	115	55	55	420
5	Open Defecation free village by introducing community & Individual Toilets	60	95	95	45	45	340
Sub Total		**195**	**285**	**280**	**160**	**160**	**1080**
	Infrastructure Development						
1	Provision of drinking water through Overhead Tank & Borewell	20	25	25	20	20	110
2	Solar street light	30	30	30	30	25	145
3	Construction of roads / culverts	35	75	75	35	50	270
4	Construction of water harvesting structures/ culverts/ pond deepening etc.	35	75	65	35	35	245
5	Construction of Pyau	5	7	7	5	7	31
6	Rennovation of temples	4	13	13	4	9	43
7	Construction of Funeral Shed in the nearby villages	6	10	10	6	10	42
8	Vermi-composting / Bio-gas Plant etc.	10	20	20	10	10	70
9	Construction of Community center, Club House, Cremation ground etc.	50	95	90	50	59	344
Sub Total		***195***	***350***	***335***	***195***	***225***	***1300***
	Sustainable Livelihood through Skill Development						
1	Exposure & training to Women SHG Members	10	20	15	10	15	70
2	Promotion of Income generating activities	30	35	30	25	15	135
3	Skill Development of Youths	40	55	45	30	25	195
Sub Total		***80***	***110***	***90***	***65***	***55***	***400***
	Social Development						
1	Setting up of rehabilitation Center for eradication of Alcoholism	40	60	85	40	25	250

S. No.	Major activities	1st Year	2nd Year	3rd Year	4th Year	5th Year	Total Amount in Rs. Lakhs
2	Promotion of Rural Sports	35	35	45	20	15	150
Sub Total		***75***	***95***	***130***	***60***	***40***	***400***
	Environment						
1	Soil & water conservation	75	110	120	55	55	415
2	Fuel efficient Chulla for Co2 emission	10	20	20	10	10	70
3	Drainage system in the Municipality	35	55	30	20	20	160
4	Plantation	30	25	30	15	15	115
Sub Total		***150***	***210***	***200***	***100***	***100***	***760***
Grand Total		**795**	**1225**	**1210**	**680**	**690**	**4600**

19.0 The cost of the project is about Rs. 1874 Crores and the capital cost for environmental protection measures is proposed as Rs. 95 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 5 Crores / annum. The employment generation from the proposed project is 365 persons. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

S. No.	Particular	Cost in Lakh Rupees	
		Capital	Recurring
1.	Air Pollution Control & House Keeping measures	8770	450
2.	Water Pollution Control and Rain Water Harvesting Measures	200	20
3.	Environment Monitoring and management	500	25
4.	Green Belt Development	30	5
	Total	9500	500

20.0 Greenbelt will be developed in 12.95 ha which is about 33% of the total project area. Greenbelt will be developed along the plant boundary as per CPCB/MoEFCC, New Delhi guidelines. Local and native species will be planted with a proposed density of 1500 trees per hectare. Total no. of 20,000 saplings will be planted and nurtured in 12.95 hectares in 5 years.

21.0 The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity.

22.0 The proposal was considered by the Expert Appraisal Committee (Industry-I) during its 27th meeting held on 3rd to 5th January, 2018. As reported by the project proponent, the study area comprised of more than 9% forestlands. The project proponent has also reported that there are no Schedule-I species in the study area. The committee felt that this should be re-examined and detailed study of the fauna to be carried out within one year. If schedule-I species are found then conservation plan for schedule-I species be prepared and implemented in consultation with state forest department. The project proponent shall provide necessary financial resources for implementation of the plan

24.0 After detailed deliberations, the Committee recommended the project for environmental clearance subject to Specific and General conditions.

25.0 The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry-I) and hereby decided to grant Environmental Clearance for the **proposed Cement Plant (Dalmia DSP Unit) - Clinker (3.0 MTPA), Cement (2.25 MTPA), WHRS (10 MW) and D.G. Set (1000 KVA) located at Village & Tehsil Rajgangpur, District Sundergarh, Odisha by M/s OCL India Limited** under the provision of EIA Notification dated 14th September, 2006, as amended, subject to strict compliance of the following Specific and General conditions:

A. SPECIFIC CONDITION:

1. An amount of Rs 46.00 Crores proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.

2. Green belt shall be developed in 12.95 Ha 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. The plantation shall be completed within one year form the date of issue of EC. In addition to this 1500 additional plants shall be planted within the premises.

3. The Capital cost Rs. 95.00 Crores and annual recurring cost Rs. 5.00 Crores towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.

4. Kitchen waste shall be composted or converted to biogas for further use.

5. The project proponent shall adopt the slip power recovery system for energy conservation.

6. Detailed study of the fauna in the study area shall be carried out within one year. If schedule-I species are found then conservation plan for schedule-I species be prepared and implemented in consultation with state forest department. The PP shall provide necessary financial resources for implementation of the plan.

7. No ground water shall be used for plant & township.

B. GENERAL CONDITIONS:

1. The project proponent shall (Air Quality Monitoring):
   a. install 24x7 continuous emission monitoring system at all the stacks to monitor stack emission with respect to parameters prescribed in G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016 as amended from time to time; S.O. 3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time and connected to CPCB online;
   b. monitor fugitive emissions in the plant premises;
   c. carryout Continuous Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120° each; and
   d. submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

2. The project proponent shall (Water Quality Monitoring):

   a) install 24x7 continuous effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed in G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016 as amended from time to time; S.O. 3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time as amended from time to time; and

   b) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

3. The project proponent shall (Air Pollution Control):

   a) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;

   b) design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 30 mg/Nm^3;

   c) provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags;

   d) provide pollution control system in the cement plant as per the CREP Guidelines of CPCB;

   e) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;

   f) recycle and reuse lime fines, coal fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after agglomeration;

   g) use leak proof trucks/dumpers for carrying coal and other raw materials and shall cover them with tarpaulin. Use closed bulkers for carrying fly ash;

   h) Provide wind shelter fence and chemical spraying on the raw material stock piles;

   i) provide Low NO_X burners to control NO_X emissions. Regular calibration of the instruments must be ensured. If needed, NOx will be controlled by using SCR/NSCR technologies; and

   j) have separate truck parking area and monitor vehicular emissions at regular interval.

4. The project proponent shall (Water Pollution Control):

   a) adhere to 'zero liquid discharge';

   b) provide Sewage Treatment Plant for domestic wastewater; and

   c) provide garland drains and collection pits 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.

5. The project proponent shall (Water Conservation);

   a) practice rainwater harvesting to maximum possible extent;

   b) provide water meters at the inlet to all unit processes in the cement plants; and

   c) make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

6. The PP shall (Energy Conservation):

   a) provide Waste heat recovery system for kiln and cooler;

   b) make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker;

   c) 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;

   d) provide the project proponent for LED lights in their offices and residential areas;

   e) maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards; and

   f) maximize utilization of alternate fuels and Co-processing to achieve best practice norms.

7. 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.

8. Used refractories shall be recycled as far as possible.

9. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

10. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

11. The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.

12. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.

13. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.

14. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.

15. 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.

16. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

17. 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).

18. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.

19. The storage of NH_3 and other hazardous chemicals at the site shall be as per the provisions of Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as amended from time to time.

20. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.

21. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

22. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.

23. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.

24. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.

25. The project proponent shall (post-EC Monitoring):

    a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;

    b. put on the clearance letter on the web site of the company for access to the public.

    c. inform the public through advertisement 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 that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http:/envfor.nic.in.

    d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;

    e. monitor the criteria pollutants level namely; PM10, SO2, NOx (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;

    f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;

    g. 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;

h. 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.

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

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

28.0 The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and that during their presentation to the EAC. The commitment made by the project proponent to the issue raised during Public Hearing shall be implemented by the proponent.

29.0 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.

30.0 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.

16/2/18

(Sharath Kumar Pallerla)
Scientist 'F' / Director

Copy to:-

1. **The Secretary**, Department of Environment, Government of Odisha, Secretariat, Bhubaneswar.
2. **The Additional Principal Chief Conservator of Forests**(C), Ministry of Environment, Forest and Climate Change, Regional Office (EZ), A/3, Chandersekharpur, Bhubaneswar – 751023.
3. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. **The Chairman**, Odisha State Pollution Control Board, Parivesh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneshwar-751012.
5. **The Member Secretary**, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
6. **The District Collector**, **Sundergarh District**, State of Odisha.
7. **Guard File / Record file / Monitoring file.**
8. **MOEF&CC Website.**

16/2/18

(Sharath Kumar Pallerla)
Scientist 'F'/Director