

## HALF YEARLY COMPLIANCE REPORT

NAME OF THE PROJECT : CEMENT PLANT & CAPTIVE POWER PLANT  
OF ORIENT CEMENT LIMITED

MOEF LETTER NO : (EC) F.NO, J-11011/342/2011-IA-II (I) dated 11.03.2013

PERIOD OF COMPLIANCE REPORT: 01.04.15 to 30.09.15

S.No.	EC Conditions	Compliance status.
<b>A. Specific Condition</b>		
i	Continuous Stack Monitoring facilities to monitor gaseous emission from the process stacks shall be provided. After expansion, limit of PM shall be controlled within 50mg/Nm <sup>3</sup> by installing adequate air pollution control system. Electrostatic precipitators to clinker cooler, bag house to raw mill/kiln and bag filters to coal mill and cement mill. Low NO <sub>x</sub> burners should be provided to control NO <sub>x</sub> emissions.	Condition is noted & will be followed. Continuous stack monitoring system to monitor gaseous emissions through stacks it is installed. Air pollution control equipments like Bag filter has been installed in Kiln, Raw mill & coal mill, ESP installed in cooler and captive power plant. Bag filters are being installed in cement mills. PM level is maintained below 50 mg/Nm <sup>3</sup> . Low NO <sub>x</sub> burner is installed.
ii	Possibilities shall be explored for the proper and full utilization of gases generated from the kiln in waste heat recovery boiler (WHRB) and a feasibility report shall be prepared and submitted to the Ministry and its Regional Office at Bangalore within 3 months from the date of issue of the letter.	Feasibility study has been done report has been submitted
iii	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R No. 826(E) dated 16th November, 2009 shall be followed.	Condition is noted & will be followed.
iv	Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines/ Code of Practice issued by the CPCB in this regard should be followed	Condition is noted & will be followed. Closed sheds are provided to lime stone, coal, additives & clinker yards. Conveyor belts are fully covered. Bag filters has been installed at all transfer points. Cement roads will be constructed. Water sprinkling will be done wherever required.
v	As and Hg shall be monitored in emissions, ambient air and water	Condition is noted & will be followed.
vi	The Coal yard shall be lined and covered	Condition is compiled.

vii	<p>Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash should be transported in the closed containers only and shall not be overloaded.</p> <p>The company shall have separate truck parking area. Vehicular emissions should be regularly monitored.</p>	<p>Condition will be followed by raw materials and cement will be transported by covered conveyor belts.</p> <p>Clinker, raw meal, cement and fly ash are stored in covered silos.</p> <p>Transportation of fly ash is done in through long conveying pneumatic conveyor.</p> <p>All the major roads for vehicular movements and approach roads to raw material yards will be concreted. All the vehicles owned by the company are periodically maintained and checked for PUC</p>
viii	<p>Total fresh water requirement for cement and captive power plant shall not exceed 3500m3/day. Efforts shall be made to further reduce water consumption by using air cooled condensers. All the treated waste water shall be recycled and reused in the process and/or for dust suppression and greenbelt development and other plant related activities etc., No process wastewater shall be discharged outside the factory premises and 'zero' discharge should be adopted</p>	<p>Water consumption is been maintaining well within the Consented capacity.</p> <p>Cement Plant has Commissioned and captive power plant is under commissioning not yet started so far. Waste water will be treated and will be used in dust suppression &amp; green belt development.</p> <p>Colony has been not yet constructed so far.</p> <p>No process wastewater are discharged outside the factory premises and 'zero' discharge is adopted.</p>
ix	<p>Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources</p>	<p>Rain water harvesting will be undertaking. Rain water from building roof will be harvested in Water reservoir of (320*250*7) has been done for storage of water. And used in the process and green belt development.</p> <p>Action plan for rainwater harvesting will be submit</p>
x	<p>Regular monitoring of influent and effluent surface, sub-surface and ground water should be ensured and treated waste water should meet the norms prescribed by the state Pollution Control Board or described under the Environment (protection) act, 1986 whichever are more stringent. Leachate study</p>	<p>Condition will be followed</p> <p>Cement Plant has Commissioned and captive power plant is under commissioning not yet started so far. Colony has been not yet constructed so far.</p> <p>Monitoring of influent, effluent</p>

	for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB	surface & ground water monitoring will be done regularly report will be submitted.
xi	All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices should be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / reprocessors only.	Dust from all the bag filters and ESP will be recycled and reused incorporated in design only. Spent oil & batteries shall be sold to authorize persons only.
xii	All the fly ash shall be utilized as per Fly ash Notification, 1999 subsequently amended in 2003 and 2009. Efforts should be made to use fly ash maximum in making Pozollona Portland Cement (PPC).	Condition will be followed. 100% of the fly ash/bottom ash generated from the captive power plants is used in manufacturing Portland Pozollona cement (PPC)
xiii	Efforts shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.	All efforts will be made to use low-grade lime, more fly ash and solid waste in the production of cement.
xiv	An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision should be made accordingly.	Already for the incineration of hazardous waste in Kiln is incorporated. After commissioning of the plant, Condition will be followed.
xv	As proposed, green belt shall be developed in at least 33 % area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.	From 2012-2014 we have planted 50000 no's of saplings surrounding the boundary wall of the plant. 30000 no's of sapling done in 2015. Already green development plan has been made it will be done in phase manner.
xvi	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants should be implemented.	Condition will be followed.
xvii	All the commitments made to the public during the Public Hearing /Public Consultation meeting held on 18th July, 2012 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bangalore.	All the commitments made during public hearing will be implemented and separate budget is already allocated.
xviii	At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing	5% of the total cost of the project is already earmarked and time bound action plan is prepared.

	Issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.																					
xix	The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilet 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.	Condition is noted and complied																				
<b>B. General Conditions</b>																						
i	The project authorities must strictly adhere to the stipulations made by the Karnataka State Pollution Control Board and the State Government.	Agreed. All the stipulation made by KSPCB in their consent to establish & consent to operate are being adhered to compliance reports will be sent to R.O KSPCB on regular basis.																				
ii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Agreed. No expansion will be carried out without prior, approval of the MOEF.																				
iii	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, SO2 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bangalore and the SPCB / CPCB once in six months.	<p>Locations of ambient air quality monitoring station have been established and monitoring will be carried out regularly.</p> <p>Data reports will be submitting to SPCB/CPCB as per the consent condition.</p> <p>Data reports of stack emission will be regularly submitting after</p> <p>Ambient Air monitoring report</p> <table><tr><th>Location</th><th>PM-10 µg/m³</th><th>PM-2.5 µg/m³</th><th>Sox µg/m³</th><th>NOx µg/m³</th></tr><tr><td>Security Main Gate</td><td>80</td><td>29</td><td>19</td><td>24</td></tr><tr><td>Near Labour Colony</td><td>90</td><td>33</td><td>24</td><td>33</td></tr><tr><td>Near Power Plant Area</td><td>78</td><td>24</td><td>21</td><td>28</td></tr></table>	Location	PM-10 µg/m³	PM-2.5 µg/m³	Sox µg/m³	NOx µg/m³	Security Main Gate	80	29	19	24	Near Labour Colony	90	33	24	33	Near Power Plant Area	78	24	21	28
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iv	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	Condition will be followed. Effluent is generated from the power plant is properly treated before disposal. Treated effluent is used for dust suppression on haul roads.
v	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night-time).	All necessary noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation are in place and properly maintained. Work place noise level survey is conducted on regular basis to identify areas with high noise levels. Corrective/preventive actions are taken if the noise levels exceed the permissible limits as stipulated in the EP/Factories act. Workers employed in high noise area are provided with proper ppe's and their exposure to noise is controlled within the permissible limits.
vi	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Condition is noted and complied. Occupational health checkup is carried out once in year for the employees working in high dust and high noise area. Health monitoring & measurement records of individual employee are maintained.
vii	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Condition is noted and will be and roof top of building harvesting will be done where in the roof water is collected and channeled into water reservoir through drains
viii	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	Company has undertaken various schemes aimed at community development and village up liftment in the project area. The environmental protection measures & safe guard as enhanced in the EIA/EMP such as green belt development monitoring of AAQ, installation of pollution control

		Equipment, Rain water harvesting conservation of Flora and Fauna, GHG mitigation (like using fly ash, hazardous waste) etc. Condition is noted and compiled.
ix	Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to The Regional Office of the Ministry at Bangalore. The funds so provided shall not be diverted for any other purpose.	Condition is noted and will be complied. Statement of expenditure on Environment Management shall be submitted at the end of current financial year. Time bound schedule for implementation of all the stipulated condition has been mentioned.
x	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestion / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	The copy of Environment Clearance has been sent to concern as desired. Environment Clearance letter also updated in company website.
xi	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF at Bangalore. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Condition is noted and will be complied. Six monthly compliance reports in respect of post Environment Clearance are timely submitted in hard to the concerned regulatory authorities. Copies of these reports as well as the annual environment statement as submitted to the KSPCB, will be upload tour company website for public viewing in compliance to the Ministry circular dated 30.06.2009
xii	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by email) to the regional office of the MOEF, the respective zonal office of CPCB and the	Six monthly reports along with the monitored data are regularly sent to the concerned authorities in hard and soft copies.

	SPCB. The regional office of this Ministry at Bangalore /CPCB / SPCB shall monitor the stipulated conditions.	
xiii	The environmental statement for each financial year ending 31st March in Form V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the environment (Protection). Rules, 1986, as amended subsequently, shall also be put on the web site of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEF at Bangalore by E-mail.	Condition will be followed. Cement Plant has been commissioned in the month September-2015 and Captive power plant not yet started. Environment statement for financial year will be submitting in 2016.
xiv	The project proponent shall also inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, atleast in two local news papers that are widely circulated in the region of which one shall be in the Vernacular language of the locality concerned and copy of the same should be forwarded to the Regional office at Bangalore.	Compiled the public was informed of the grant of environment clearance through and advertisement in the local newspaper on 17.03.2013 in Prajavani & Sanukta Karnataka and in English newspaper on 18.03.2013 in Deccan Herald and clippings have been submitted to the regional office of the MoEF immediately after the grant of Environment Clearance.
xv	Project authorities shall inform the regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	It will inform to the concerned regulatory authorities. Financial closure: Final approval of project Land development work

Thanking You

Yours faithfully

**Pramod Kumar Singhania**  
(Sr. Vice President - Works)

**CC: Member Secretary KSPCB Bangalore.**  
**Regional office KSPCB Gulbarga**