

**Ministry of Environment, Forests and Climate Change (MoEF&CC)**  
**Regional Office – South Eastern Zone**  
**Nungambakkam, Chennai – 600034.**

**MONITORING REPORT**

**PART I**

**DATA SHEET**

- 1 Project Type : Industry (Cement Grinding Unit)  
River valley / Mining /  
Industry / Thermal / Nuclear /  
Other Specify
- 2 Name of the project : M/s Madras Cements Limited (Vizag Cement Grinding Unit), Sy.No. 1,13,14,17, Gobburupalem & Gobburu (V), Kasimkota (M), Visakhapatnam District, Andhra Pradesh.
- 3 Clearance letter(s) / OM No. and dated : SEIAA/AP/VSP-86/2013/661 dated 3/05/2013
- Consent Order for Establishment (CFE) no & date : 312/PCB/CFE/RO-VSP/HO/2013-2253 dated 08/07/2013
- Consent Order for Operation (CFO) no, date and validity : Initially, CFO obtained vide order dated 21.4.2015. Thereafter, CFO was renewed vide order no. APPCB/VSP/VSP/312/CFO/HO/2016 dated 24/02/2016 and is valid up to 28/02/2021.
- 4 Locations :
- a. Taluk(s) : Gobburupalem & Gobburu (V), Kasimkota (M), District Visakhapatnam
- b. State (s) : Andhra Pradesh
- c. Latitudes / Longitudes :
- | Corner | North Latitude | East Longitude |
|--------|----------------|----------------|
| NE     | 17°37'06"      | 82°53'50"      |
| SE     | 17°36'52"      | 82°53'45"      |
| SW     | 17°36'57"      | 82°53'19"      |
| NW     | 17°37'21"      | 82°53'10"      |
- 5 Address of correspondence
- a. Address of concerned project Chief Engineer (with Pin Code & telephone / telex / fax numbers) : Shri Sudhansu Gantayet  
Sr. General Manager (Works)  
M/s Ramco Cements Limited,  
Gobburu & Gobburupalem Village  
A.S.Peta - 531055  
Kasimkota Mandal,  
Visakhapatnam Dist  
Andhra Pradesh  
Email:sudhansug@ramcocements.co.in
- b. Address of Executive Project Engineer/ Manager (with Pin Code/fax numbers) : -do-
- 6 Salient features:
- a. Salient features and present status of the project : Project involves setting up of cement grinding unit of 0.95 MTPA capacity. Project has been implemented and the unit is under operation.

- b. of the environmental management plans : • Control equipment like bag house is provided in the process area to control the stack emission within the permissible limits;  
• Internal and external roads of factory were asphalted to reduce the dust emission during vehicle movement;  
• Online stack monitor and continuous ambient air quality monitoring equipment installed to monitor the pollution level on 24x7 basis;  
• Green belt development;  
• Monitoring of environmental parameters through third party (MoEF&CC recognized laboratory)
- 7 Breakup of the project area:
- 8 Project area : 43.46 Ha  
Break up of project affected population with enumeration of those losing houses / dwelling units only, agricultural land only, both dwelling units and agricultural land and landless labourers / artisans : Nil
- a SC,ST/Adivasis : Not Applicable.  
b Others : Not Applicable.
- 9 Financial Details:
- a Project cost as originally planned and subsequent revised estimates and the years of price reference : Original: Rs.360 crores  
(As per the EC accorded)  
Revised: Rs.458 crores  
(As per the project proponent)
- b Allocations made for environmental management plans, with item wise and year wise breakup : • Capital cost – Rs. 4.5 crore  
• Recurring cost – Rs. 5 lakh per annum  
• CSR activities – Rs. 20 lakh per annum
- c Benefit cost ratio / internal rate of return and the years of assessment : Details not made available.
- d Whether (c) includes the cost of environmental management as shown in (b) above : Details not made available.
- e Total expenditure on the Project so far : Total expenditure as on 31.03.2016 – Rs. 458 crore
- f Actual expenditure incurred on the environmental management plans so far : • Capital cost for environmental management plan is nearly Rs. 5 crore  
• Recurring cost for environmental management:  
○ Greenbelt - Rs. 15 lakh per annum  
○ Environmental monitoring – Rs. 1 lakh  
• CSR activities:  
○ 2014-15 – Rs. 35.62 lakh  
○ 2015-16 – Rs. 58.92 lakh  
○ 2016-17 – Rs. 8.17 lakh (up to Jan 2017)
- 10 Forest land requirement: : NIL

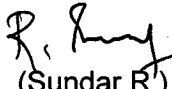
- a The status of approval for a diversion of forest land for non-forestry use : Not Applicable
- b The status of compensatory afforestation, if any : Not Applicable
- c The status of clear felling : Not Applicable
- d Comments on the viability and sustainability of compensatory afforestation programme in the light of actual field experience so far : Not Applicable
- 11 The status of clear felling in non-forest area (such as submergence area of reservoir, approach road), if any, with quantitative information : Not Applicable
- 12 Status of construction:
- a. Date of commencement : 20.07.2013
- b. Date of completion (actual and / or planned) : 24.04.2015
- 13 Reasons for the delay if the project is yet to start. : Nil
- 14 Date of site visit:
- a The dates on which the project was monitored by the Regional Office on previous occasions, if any : Nil
- b Date of site visit for this monitoring report : 8.2.2017

The above project was monitored by the undersigned on 8.2.2017 along with the following representatives of the M/s Ramco Cements Limited **[M/s RCL- herein after referred as Project Proponent (PP)]**.

- i. Shri Sudhansu Gantayet, Sr. General Manager (Works);
- ii. Shri C.H. Suresh Kumar, Manager – Process and Quality Control;
- iii. Shri C.H. Madan Mohan, Asst. General Manager - Projects;
- iv. Shri Hari Prasad, Sr. Manager – EHS.

The status of compliance on the stipulated conditions contained in the ECs cited above is given below in **Part II & Part III**.

This is approved by the Addl.PCCF (Central), RO-Chennai vide diary no.466 dated 11/04/2017.

  
(Sundar.R.)  
Scientist 'D'

**PART II & III**

**DESCRIPTIVE REPORT ON STATUS OF COMPLIANCE TO THE CONDITIONS OF THE ENVIRONMENTAL CLEARANCE AND ENVIRONMENTAL MANAGEMENT**

**Subject:** M/s Madras Cements Limited (Vizag Cement Grinding Unit), Sy.No. 1,13,14,17, Gobburupalem & Gobburu (V), Kasimkota (M), Visakhapatnam District, Andhra Pradesh.

**Reference:** SEIAA/AP/VSP-86/2013/661 dated 3/05/2013

S.No.	Conditions	Compliance status
<b>A. SPECIFIC CONDITIONS:</b>		
<b>a) Air pollution:</b>		
i.	Separate stacks each of height 60 m & 45 m shall be provided to Cement Mill & Packing Dept., respectively. The particulate emissions from the plant shall not exceed 50 mg/Nm <sup>3</sup> at any time. Bag filters shall be provided to control emissions. The DG sets shall be provided with a stack of height 46 m, as committed in the presentation.	Complied. Two stacks each of height 60 m and 45 m has been provided to the Cement Mill & Packing Department respectively. Continuous monitoring system to monitor gaseous emissions through 2 stacks has been commissioned and the online real time monitoring data is being transmitted to APPCB/CPCB server. In addition to this, stack emission monitoring is being done manually by the third party (MoEF&CC recognized laboratory) on monthly basis. Report provided during the visit indicates that the particulate emission levels from the stacks are not exceeding 30mg/Nm <sup>3</sup> . Bag filters are provided to control fugitive emissions at all material transfer points. There are two DG sets with a capacity of 6250 KVA each and connected to a common stack having height of 46m.
ii.	Sampling Port with removable dummy of not less than 15 cm diameter in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc., shall be provided to monitor stack emissions.	Complied. Sampling ports have been provided in the two stacks as stipulated in this condition.
iii.	Online ambient air quality monitoring stations shall be installed.	Complied. Two online real time Continuous Ambient Air Quality Monitoring (CAAQM) stations have been installed in upwind & downwind directions after consultation with APPCB as informed. Online real time monitoring data is transmitted to APPCB/CPCB server for the parameters PM <sub>10</sub> and PM <sub>2.5</sub> . In addition to this, manual Ambient Air Quality monitoring at four locations is being carried out by a third party (MoEF&CC recognized laboratory) on monthly basis manually for the parameters PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> and NO <sub>x</sub> . AAQ

S.No.	Conditions	Compliance status
	Energy meters shall be installed for all pollution control systems.	monitored report provided during the visit does not show any anomaly.  Separate energy meter has been installed to record the energy consumption for all major pollution control equipment.
iv.	Ambient air quality including ambient noise levels must not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality and stack emissions shall be carried out regularly in consultation with APPCB and report submitted to the Board and to the Ministry's Regional Office at Bangalore half yearly.	Complied. <u>Stack emission:</u> Continuous monitoring system to monitor gaseous emissions through 2 stacks has been commissioned and the online real time monitoring data is being transmitted to APPCB/CPCB server. In addition to this, stack emission monitoring is being done manually by the third party (MoEF&CC recognized laboratory) on monthly basis. Report provided during the visit indicates that the particulate emission levels from the stacks are not exceeding 30mg/Nm <sup>3</sup> .  <u>AAQ monitoring:</u> Two online real time Continuous Ambient Air Quality Monitoring (CAAQM) stations have been installed in upwind & downwind directions after consultation with APPCB as informed. Online real time monitoring data is transmitted to APPCB/CPCB server for the parameters PM <sub>10</sub> and PM <sub>2.5</sub> . In addition to this, manual Ambient Air Quality monitoring at four locations is being carried out by a third party (MoEF&CC recognized laboratory) on monthly basis manually for the parameters PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> and NO <sub>x</sub> . AAQ monitored report provided during the visit does not show any anomaly.  <u>Noise level:</u> Ambient noise level (day time and night time) is being monitored by a third party (MoEF&CC recognized laboratory) at 6 locations on monthly basis. Report provided during the visit indicates that the ambient noise levels are within the permissible limits.  Monitored environmental data (AAQ/Stack and Noise level) are being regularly submitted to the APPCB and to the Regional Office of the MoEF&CC along with the six monthly compliance report.
v.	Raw materials and products shall be transported in covered trucks. Storage	Complied. Raw materials & product transportation:

S.No.	Conditions	Compliance status
	<p>of raw material shall be in roof sheds. Water spray system shall be provided all around the stockpiles and dust suppression system around the conveyor system. All the conveyor belts shall be covered with GI sheets. All the roads in the plant area shall be asphalted / concreted and water sprayed to reduce the fugitive dust emissions.</p>	<ul style="list-style-type: none"> <li>• Clinker - wagon</li> <li>• Gypsum &amp; slag – covered trucks</li> <li>• Fly ash – closed tanks</li> <li>• Cement – wagon / covered trucks</li> </ul> <p>Storage:</p> <ul style="list-style-type: none"> <li>• Clinker, fly ash &amp; cement - Silos</li> <li>• Gypsum &amp; slag – covered shed</li> </ul> <p>Water spraying is carrying out all around the stockpiles and dust suppression system around the conveyor system. All the conveyor belts are covered with GI sheets. All the internal roads in the plant area have been black topped and water spraying is done to reduce the fugitive dust emissions. Road sweeping machine is used.</p>
vi.	<p>In-plant control measures for checking fugitive emissions from all the vulnerable sources like spillage / raw materials handlings etc., shall be provided. Further, specific measures like provision of adequate dust suppression &amp; extraction system consisting of water sprinkling, suction hoods, fans and bag filters etc., shall be installed at material transfer points, and other raw material handling areas. Fugitive emissions shall be regularly monitored and records maintained.</p>	<p>Complied.</p> <p>Bag filters are installed at all material transfer points and other raw material handling areas. Specific measures like provision of adequate dust suppression &amp; extraction system, suction hoods, fans and bag filters etc., are installed at material transfer points and other raw material handling areas.</p> <p>Fugitive emissions are being monitored by the proponent are records are being maintained.</p>
viii.	<p>Interlocking facility should be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the feeding of raw materials is stopped automatically.</p>	<p>Complied.</p> <p>It was informed that failures of pollution control system if any, are attended only after stopping the respective process operation/s. It was assured that at no time emissions level will go beyond the prescribed standards.</p>
viii.	<p>The project proponent shall develop a thick greenbelt of width 10 m along the boundary &amp; at vacant places in the plant, with appropriate species to suppress any dust emissions in consultation with the local DFO. The area of the greenbelt shall not be less than 15.58 Ha.</p>	<p>Complied.</p> <p>Total area is 43.46 ha, out of 43.46 ha, greenbelt has been developed in an area of 7 ha by planting approximately 14,250 Nos. of local species as informed. Further, informed that the species are chosen in consultation with the local DFO &amp; Agriculture departments. The major species are:</p> <ul style="list-style-type: none"> <li>• Neem</li> <li>• Maddi</li> <li>• Ficus religiosa</li> <li>• Terminajia arjuna etc.</li> </ul> <p>Width of the green belt varies from 2-10m as informed. Plantation work is satisfactory and survival rate is observed</p>

S.No.	Conditions	Compliance status
		to be about 75%.The project proponent informed that the balance greenbelt area (8.58 ha) will be developed in next three years (i.e., 2017-20).
<b>b) Water Pollution:</b>		
i.	The source of water is Bore well. The total water requirement shall not exceed 100 KLD. Out of that 60 KLD is utilized for equipment cooling; 5.0 KLD for Dust suppression; 20 KLD for development of greenbelt and 15 KLD is utilized for domestic purpose. No effluent shall be discharged outside the factory premises and 'zero' discharge shall be adopted. Waste water generated from Domestic section of shall be sent to Septic tank followed by dispersion trench.	Complied. The source of water is bore well. The total water requirement is 96 KLD. Out of 96 KLD, 81 KLD is being used for equipment cooling, dust suppression & greenbelt and 15 KLD is being used for domestic purposes. As cement manufacturing is dry process, 'zero' discharge is being adhered to. Domestic sewage is being treated in Septic tank followed by dispersion trench.
ii.	The company must harvest the rainwater from the rooftops and storm water drains to recharge the ground water.	Complied. 12 Nos. of rain water harvesting pits are constructed to collect rain water from roof tops which helps to recharge the ground water. Run-off from the plant area is connected to 2 Nos. of sedimentation tanks with total storage capacity of around 28,000 m <sup>3</sup> . The water from the pits are used for greenbelt / water sprinkling activities in order to conserve ground water.
<b>c) Solid Waste:</b>		
i.	Dust generated from the Bag filters shall be completely recycled. Waste oils & used oils generated from the plant shall be dispersed as per the Hazardous Waste (Management and Handling) transboundary rules and its amendments thereof to the recyclers authorized by APPCB.	Complied. Dust generated from the bag filters is being completely recycled back into the process as informed. Used oil generation is 600 LPA which is being used for lubricating the machinery parts as approved by the APPCB. Authorization under the provisions of the Hazardous Wastes (Management, Handling, and Transboundary Movement) Rules, 2008 has been obtained and is valid up to 28/02/2021.
<b>B. General Conditions:</b>		
i.	This order is valid for a period of 5 years:	Agreed upon. It was submitted that the condition is "Noted" and assured to abide by the condition. Now they are in 5 <sup>th</sup> year.
ii.	'Consent for Establishment' shall be obtained from Andhra Pradesh Pollution Control Board under Air and Water Act before the start of any activity / construction work at site.	Complied. Andhra Pradesh Pollution Control Board accorded Consent for Establishment vide letter No. 312/PCB/CFE/RO-VSP/HO/2013-2213 dated 08.07.2013. Construction activities were commenced

S.No.	Conditions	Compliance status
		after obtaining CFE from APPCB as informed.
iii.	Provision shall be made for the housing of the construction labour within the site with all necessary infrastructure and facilities such as safe drinking water, fuel for cooking, mobile toilets, mobile STP, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.	Complied. Condition pertains to the construction phase. PP informed during the visit that this condition has been reportedly complied.
iv.	No change in the process technology and scope of working should be made without prior approval of the SEIAA, AP. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, AP / MoE&F, Gol, New Delhi, as applicable.	Agreed upon. It was submitted that this condition is noted and assured to abide by this condition.
v.	The proponent shall submit half-yearly compliance reports in respect of the terms and conditions stipulated in this order in hard and soft copies to the SEIAA; and CCF, Regional Office of MoE&F, Gol, Bangalore on 1 <sup>st</sup> June and 1 <sup>st</sup> December of each calendar year.	Partly complied. Six monthly compliance reports (hard and soft copies) inter-alia including monitored data (AAQ/ground water/ noise) have been submitted to the Regional Office of the MoEF&CC/SEIAA.
vi.	Officials from the Regional Office of MoE&F, Bangalore who would be monitoring the implementation of environmental safeguards should be given full co-operation, facilities and documentation / data by the project proponents during their inspection. A complete set of all the documents shall be submitted to the CCF, Regional Office to MoE&F, Bangalore.	Complied. The PP have extended full co-operation during the visit. Complete set of documents were submitted during the visit.
vii.	Four ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for monitoring. Locations of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	Complied. Two online real time Continuous Ambient Air Quality Monitoring (CAAQM) stations have been installed in upwind & downwind directions after consultation with APPCB as informed. Online real time monitoring data is transmitted to APPCB/CPCB server for the parameters PM <sub>10</sub> and PM <sub>2.5</sub> . In addition to this, manual Ambient Air Quality monitoring at four locations is being carried out by a third party (MoEF&CC recognized laboratory) on monthly basis manually for the parameters



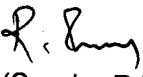
S.No.	Conditions	Compliance status
		PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> and NO <sub>x</sub> . AAQ monitored report provided during the visit does not show any anomaly.
viii.	Data on ambient air quality should be regularly submitted to the Ministry including its Regional Office located at Bangalore and the State Pollution Control Board / Central Pollution Control Board once in six months.	Complied. Same as above General Condition No.v.
ix.	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.	Complied. PP informed that the workers were imparted adequate training on safety and health aspects according to their categories of job. Training records are maintained. The workers are provided with protective devices such as dust mask, safety shoes and helmets.
x.	Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Complied. It was informed that occupational health surveillance (OHS) of the workers has been undertaken periodically as per the norms to observe any contradictions due to dust exposure. Further, it was informed that so far no abnormalities have been reported. OHS records are maintained.
xi.	A separate environmental management cell with suitable qualified personnel should be set up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Complied. Separate Environmental Management Cell (EMC) with the following composition has been established: i. Plant head; and ii. Manager – P&QC. Further, environmental monitoring is also being carried out by a third party (MoEF&CC recognized laboratory) on monthly basis. External support from corporate office and from other units is taken by the cell, in case of any necessary as informed during the visit.
xii.	The funds earmarked for environmental protection measures (Capital cost of Rs. 4.5 crores & Recurring cost of Rs. 5.0 lakhs / annum); & CSR activities (Rs. 20.0 lakhs), as committed in presentation should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Bangalore.	Partly complied. An amount of Rs. 5.00 crores and Rs.0.16 crores has been incurred towards the capital cost and recurring cost per annum for environmental protection measures. An amount of Rs. 1 crore has been incurred towards the CSR activities. It was informed that fund earmarked towards EMP has not been diverted for any other purpose. However, year wise EMP expenditure has not been reported to the Regional Office of the MoEF&CC.
xiii.	The project proponent shall submit the copies of the environmental clearance to the Heads of local bodies, Panchayats and Municipal Bodies in	Reportedly complied. A copy of the clearance letter has been reportedly sent by the PP to the panchayat/local NGO. However,

S.No.	Conditions	Compliance status
	addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	document to this regard has not been made available during the visit.
xiv.	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and SEIAA, AP. This order shall be displayed in the website of the project proponent.	Partly complied. Advertisements regarding the accord of environmental clearance were given in the local newspaper namely Hindu and Eenadu on 9.5.2013. The clause of seven days has been followed.
xv.	The SEIAA or any other competent authority may alter / modify the above conditions or stipulate any further condition in the interest of environment protection.	Agreed upon. It was submitted that the condition is "Noted" and assured to abide by the condition.
xvi.	The company shall undertake eco-development measures including community welfare measures in the project area.	Complied. Total area is 43.46 ha, out of 43.46 ha, greenbelt has been developed in an area of 7 ha by planting approximately 14,250 Nos. of local species as informed. Plantation work is satisfactory and survival rate is observed to be about 75%. Further, informed that an amount of Rs. 1/- crore has been incurred towards the implementation of various CSR activities for the period 2014-17.
xvii.	The proponent shall obtain all other mandatory clearances from respective departments.	Complied. PP informed that all other mandatory clearances have been obtained from the respective departments.
xviii.	Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.	Refer below. PP informed that there is no wildlife sanctuary/critically polluted area/ecologically sensitive zone within 10km from the boundary of the plant area.
xix.	Any appeal against this Environmental Clearance 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.	Agreed upon. It was informed that no appeal has been made within 30 days and submitted that the condition is "Noted" and assured to abide by the condition.
xx.	Concealing the factual data or failure to comply with any of the conditions mentioned above may result in	Agreed upon. It was submitted that this condition is noted and assured to abide by this

S.No.	Conditions	Compliance status
	withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	condition.
xxi.	The SEIAA may revoke or suspend the order, if implementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter / modify the above conditions or stipulate any further condition in the interest of environment protection.	Agreed upon. It was submitted that the condition is "Noted" and assured to abide by the condition.
xxii.	The above conditions will be enforced inter-alia, under the provisions of the Water (Protection & Control of Pollution) Act, 1974, the Air (Protection & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and Public Liability Insurance Act, 1991 along with their amendments and rules.	Partly complied. Consent under the Air Act & Water Act, Authorization under the Hazardous Waste (MH & TM) Rules, 2008 have been obtained which is valid up to 28/02/2021. Insurance under the provisions of the PLI Act, 1991 has not been obtained.

1. **Housekeeping:** Housekeeping in the premises is satisfactory.
2. **With regard to issuance of show cause/closure notices/directions:-** It was informed by the PP that there was no issuance of Show Cause/directions/closure notices in the last two years by the APPCB.

This is approved by the Addl.PCCF (Central), RO-Chennai vide diary no.466 dated 11/04/2017.

  
(Sundar.R.)  
Scientist 'D'