

REGISTERD POST

ACL/DCW/MOEF/2014-15/

Date: 01.12.2014

The Additional Principal Chief Conservator of Forest
Ministry of Environment, Forest and Climate Change
Regional Office –South Eastern Zone
1st and 2nd floor, HEPC Building
34, Cathedral Garden Road
Nungambakkam, Chennai- 600034

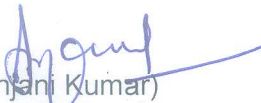
**Sub: Six Monthly Environment Clearance Compliance report (April,2014 to Sept, 2014),
EC granted by MoEF vide letter no.F.No.-J-11011/719/2007-IA II (I) dated 20th December
2007.**

Dear Sir,

With reference to above, please find enclosed half yearly Environment Clearance compliance report of Durga Cement Works, a unit of Andhra Cements Limited for the period of April 2014 to September 2014 for your kind information and record please.

Thanking You

Yours faithfully,
For **DURGA CEMENT WORKS**
A unit of Andhra Cements Limited


(Anjani Kumar)
Sr.GM (P&QC)

Enc: As above

Copy to:

The Member Secretary,
AP Pollution Control Board
Paryavaran Bhavan ,A-III, IE, Sanath Nagar,
Hyderabad-500018

The Environment Engineer
Regional office, AP Pollution Control Board
102 Raghava Apartment, Brundavan garden
GUNTUR-522007, Andhra Pradesh

Shri S.Suresh
(Scientist D & Incharge)
Central Pollution Control Board, 1st & 2nd Floor, Nisarga Bhavan
A-Block, Thimmaiah Main Road, 7th D Cross, Shivanagar
Opp. Pushpanjali Theatre, Bengalure, Karnataka

DURGA CEMENT WORKS

A Unit of Andhra Cements Limited
Gamalapadu (V), Dachepalli (M)
Guntur District, Andhra Pradesh.

Six monthly compliance report for the period April 2014 to September 2014 to the conditions specified in Environment Clearance granted by MoEF Vide letter no. J-11011/719/2007-IA II (I) dated 2012.2007.

Sl.No.	Condition	Compliance
A. Specific Conditions:		
i	Continuous monitoring system to monitor gaseous emissions shall be provided and limit of SPM shall be controlled within 50 mg/Nm ³ by installing adequate air pollution control system and data submitted to the Ministry's Regional Office at Bangalore, A.P. Pollution Control Board (APPCB) and CPCB regularly.	Being Complied. Continuous monitoring system to monitor gaseous emissions through stacks has been working and online real time monitoring data is being transmitted to APPCB Server & Display board at factory gate regularly. Air pollution control equipments like RABH installed in Kiln & Raw mill, Bag filter installed in coal mill, ESP installed in cooler. Bag filters installed in cement mills. PM level is maintained below 50 mg/Nm ³ . Data is being submitted to Ministry's Regional Office at Chennai, A.P. Pollution Control Board (APPCB) and CPCB regularly. Stack emission report is attached as Annexure-A(i) . CEMS installed at all major stacks exhibit at Annexure-A(ii) Photographs of the APCDs are also attached as Annexure-A(iii)
ii	The company shall install adequate dust collection and extraction system to control fugitive dust emissions at various transfer points, raw mill handling (unloading, conveying, transporting, stacking), vehicular movement, bagging and packing areas etc. Crusher shall be operated with high efficiency bag filters. All conveyers shall be covered with GI sheets. Covered sheds for storage of raw materials and fully covered conveyers for transportation of materials shall be provided besides coal, cement, fly ash and clinker shall be stored in silos. Pneumatic system shall be used for fly ash handling.	Dust collection and extraction system (Bag filters) have been installed to control fugitive dust emissions at various transfer points i.e raw mill handling (unloading, conveying, transporting stacking) bagging and packing areas etc. Crusher has been provided with high efficiency bag filters. All conveyers are covered. Covered sheds are provided for storage of raw material such as lime stone, laterite, coal, gypsum. Cement and clinker are stored in silos. Fly ash silo and pneumatic system is being installed for fly ash handling. List of the APCDs are given in Annexure-A(iv) . Fugitive control measures exhibit at Annexure-A(v)
iii	Secondary fugitive emissions shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice	The secondary fugitive emission is being controlled as recommended and is being regularly monitored. The monitoring data is being submitted to APPCB, CPCB

	issued by the CPCB shall be followed and data submitted to the Ministry's Regional Office at Bangalore, CPCB and APPCB.	and MOEF regularly.
iv	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment and Forests and its Regional Office, Bangalore.	Agreed,shall be complied.
v	Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RPM such as haul road, loading and unloading points, transfer points and other vulnerable areas. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Regular water sprinkling is being carried out at all pollution prone areas, conforming the air quality norms as prescribed by the CPCB. Ambient Air Monitoring data are enclosed as per Annexure-A(vi)
vi	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles shall be covered with a tarpaulin and shall not be overloaded.	Being complied by taking suitable measures for maintenance of Mine's vehicles. The vehicles are not overloaded and are covered with tarpaulin as at Annexure-A (vii) .
vii	Asphalting/concreting of roads and water spray all around the stockyard and loading / Unloading areas in the cement plant shall be carried out to control fugitive emissions.	Being complied. Photographs are attached at Annexure-A(viii) .
viii	Total ground water requirement for cement plant and mining shall not exceed 420 and 60 m ³ /day (including 56 m ³ /day mine water) respectively. All the treated wastewater shall be recycled and reused in the process and/or for ash quenching, dust suppression, green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted.	Water consumption is maintained as per the APPCB limits. No process waste water is discharged outside the factory premises and 'zero' discharge is maintained.
ix	'Permission' for the drawl of ground water from SGWB / CGWA shall be obtained. Mined out area shall be developed as artificial reservoir. The water stored in the artificial reservoir made in the mine pit shall be used maximum to reduce ground water consumption.	Permission for the drawl of ground water obtained. Copy of the letter is provided at Annexure-A (ix) . Mined area developed as artificial water reservoir as per Annexure-A (x) . Water collected in artificial reservoir in the mine pit is being used to minimize ground water consumption.
x	Sewage treatment plant (STP) shall be installed for the colony. Treated domestic effluent shall be used for green belt development within the plant premises. Domestic waste from colony and STP shall be	Being Complied. Sewage Treatment Plant of capacity 300 KLD constructed at the colony area for the treatment of sewage water of the colony and the plant. Quality of Treated water is within

	segregated into bio-degradable and non-biodegradable. Bio-degradable waste shall be composted and non-biodegradable waste shall be land filled at identified sites. ETP should also be provided for workshop and mineral separation plant wastewater.	the Norms. Treated water is being used in gardening and dust suppression. Sludge of STP is being used as manure. Bio-degradable and non bio-degradable waste is being treated as directed. STP Photographs attached as per Annexure-A(xi)
xi	The project proponent shall ensure that no natural watercourse shall be obstructed due to any mining operations.	We ensure that no natural course of water get obstructed due to any mining operation.
xii	All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process and used for cement manufacturing. Sludge from domestic sources shall be used as manure for green belt development. Waste oil shall be sold to authorized recyclers / preprocessors only.	Systems are designed and installed for recycling and re-use of the dust collected through pollution control devices. Similarly sludge from domestic sources is being used for green belt development. Waste oil shall be sold to authorized recyclers / pre-processors
xiii	An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly.	System shall be made to use high calorific hazardous waste in cement kiln.
xiv	Efforts shall be made to use low grade lime, more fly ash and solid waste in the cement manufacturing.	Being complied, we are mixing low and high grade Limestone to conserve the natural resources. Flyash in PPC will be used when manufactured.
xv	Action plan for the mining, management of over burden (removal, storage, disposal etc.), reclamation of the mined out area and mine closure shall be submitted to the Ministry and its Regional Office at Bangalore.	There is no overburden present in our mine, as Limestone is exposed on the surface.
xvi	The top soil and solid waste shall be stacked separately at specified dumping site with proper safeguards. Top soil shall be used for the plantation / green belt development during reclamation and solid waste for backfilling.	There is no top soil and solid waste in our mine.
xvii	The over burden (OB), inter burden and other waste generated from mines, if any, shall be stacked at the earmarked dump sites only and should not be kept active for long period. Backfilled OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of reclaimed areas shall continue until the vegetation becomes self-sustaining. Regular compliance shall be submitted to the Ministry and its Regional Office at Bangalore on six monthly basis.	There is no overburden, inter burden and other waste generated in our mine.100% limestone being used for cement manufacturing.
xviii	The area for external over burden dump shall	Noted, however there is no over burden

	be reduced by suitably increasing the height of the dumps with proper terracing. It shall be ensured that the overall slope of the dump does not exceed 28°.	in our mine.
xix	Garland drains shall be constructed to arrest silt and sediment flows from soil. The water so collected shall be used for watering the mine area, haul roads, green belt development etc. The drains shall be regularly de-silted and maintained properly.	Noted, however there is no wastes dump generated in our mine.
xx	Suitable rainwater harvesting and conservation measures to augment groundwater resources in the area on long term basis shall be planned and implemented in consultation with Regional Director, Central Ground Water Board in cement plant and mining area to augment ground water resources and use for dust suppression and horticulture.	Rain water is being collected into Mine's pit for further use in the plant.
xxi	Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and new peizometers at suitable locations by the project proponent in and around project area in consultation with Regional Director, Central Ground Water Board during the mining operation. The ground water monitoring shall be carried out 4 times in a year i.e. pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and data thus collected shall be regularly sent to the Ministry, its Regional Office at Bangalore, Central Ground Water Authority and State Ground Water Board, Bangalore.	Ground water depth level and water quality is being regularly monitored & analyzed and abstract of the same is given at Annexure-A (xii) .
xxii	The project proponent shall take appropriate mitigative measures to prevent pollutions of nearby River and other surface water body, if any.	No waste water generated in our process/plant& mines. Zero discharge is adopted.

xxiii	<p>Deep hole wet drilling sequential blasting method shall be adopted and provision for the control air emissions during blasting using dust collectors/ extractors etc. shall be made. Blasting operation shall be carried out during the daytime only and one bench at a time shall be blasted. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders shall be implemented. 'No objection certificate' from the Chief Controller of Explosives shall be obtained.</p>	<p>Being complied. Wet drilling and sequential blasting methods applied. The charge per hole is also adjusted to minimize ground vibration and to control fly rocks. We are monitoring Ground vibration and air blast with the help of 'Minimate' instrument and keeping records of the same. The results are well within the permissible limits specified by DGMS. We have obtained no objection certificate from Chief controller of explosives, in form LE-3 for Explosive Possession and Use. Enclosed copy of License No.E/HQ/AP/22/93(E1673) as Annexure –A(xiii)</p>
xxiv	<p>Out of total 141.574 ha., green belt shall be developed in at least 36 ha. (25 %) in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO. In mining, out of 170.22 ha., plantation shall be raised in an area of 46.72 ha. By planting the native species around mining lease area, over burden dumps, around water body, roads etc. in consultation with the local DFO / Agriculture Department. At least, 1,500 trees per year shall be planted with a tree density of 2,000 trees per ha. An action plan shall be submitted in this regard.</p>	<p>Cement plant area has already 48 ha of green belt. Tree plantation work in additional area including Mines is under progress. An action plan for green belt development of Plant and Mines area is given at Annexure –A (xiv) , photographs of tree plantation enclosed as per annexure-A(xv)</p>
xxv	<p>The void left unfilled shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plantation done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out along the excavated area.</p>	<p>Our Mine is running mine, which will be converted into water body after completion of life. The maximum bench height is 8 m which is as per Mining plan approved by IBM.</p>
xxvi	<p>The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. Copy of action plan may be submitted to the Ministry and its Regional office within 3 months from the date</p>	<p>There is no endangered fauna around the plant and mines area. The detailed ecological studies were conducted to assess the present biological resource in and around the surrounding area. Field survey conducted in pre monsoon season revealed a total of 251 species of plants of which 112 were phanerophytes, 108 were therophytes, 22 hemi cryptophytes, and 9 geophytes. 39 species of fauna observed in study</p>

	of issue of this letter.	area during study period .Out of which 1 SC-I species, 2SC-II species and the remaining are SC-IV species. Literate survey and data collected from forest department reveals that there are no wildlife sanctuaries national parks and biospheres and no migratory paths of birds and animals in 10 km radius. Detail Flora and Fauna study report attached as per Annexure –A(xvi) .
xxvii	A final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Agreed. Shall be complied.
xxviii	Mechanized open casting shall be adopted and no change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.	Agreed. Mechanized open cast mining is adopted and we will take prior approval of MOEF for any change in technology or scope.
xxix	Consent to Operate shall be obtained from APPCB before starting enhanced production from the mine.	Consent to Operate the mining operation for enhanced production has been obtained & renewed. Mines CFO validity is up to 30 June 2016. Renewed copy of CFO enclosed as Annexure- A (xvii)
xxx	'Permission' of the State Forest Department shall be obtained regarding impact of cement plant and mining activities on the surrounding 6 reserve forests viz. Gamalapadu RF (0.1-0.4 km.), Madinapadu RF (1.2-1.8 km.), Daida RF (4.7-4.9 km.), Saidulnam RF (3.8-5.0 km.), Ravipahad RF (5.3-6.6 km.) and Warivabad RF (6.2-6.8 km) and all the recommendations shall be followed.	There is no adverse impact of cement plant operation and mining activities on the surrounding 6 reserve forests. The plant and Mines have been running since 1984.
xxxi	The company shall obtain necessary clearances / approval from the concerned Departments i.e. Indian Bureau of Mines, State Government, MoEF etc. for the linked mining component before undertaking any construction activity at the project site.	Necessary permissions are obtained. Letter No.MS/AP/GNR/LST-189-SZ from IBM enclosed as Annexure – A (xviii) .We have already submitted Mining Scheme to IBM for renewal approval. vide reference letter no ACL\DCW-Mines \2013-10 dated 17 th December 2013
xxxii	Rehabilitation and Resettlement Plan for the project affected population as per the policy of the State Govt. shall be prepared and	There is no Rehabilitation and Resettlement involved in this Project.

	implemented.	
xxiii	Acoustic enclosures shall be provided to control noise wherever necessary. Mine machine shall be provided with silencers. Noise shall also be controlled from cooler fans, compressor house, cement mill and raw mill, cement plant and drilling machines, excavator, blasting at mine site using appropriate noise control measures.	All Mining machineries provided with silencers. Sharp bits are being used with wet drilling to reduce noise of drilling machine. Drill operators are provided ear plug. Bottom initiation with the help of shock tubes and use of millisecond delay to reduce noise by blasting. Acoustic enclosures in the plant area are used where ever applicable.
xxxiv	All the safety norms stipulated by the Director General, Mine & Safety (DGMS) should be implemented.	We are implementing all the safety norms stipulated by DGMS

B General Conditions :

i	The project authority shall adhere to the stipulations made by Andhra Pradesh Pollution Control Board (APPCB) and State Government.	Agreed.
ii	No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.	Agreed.
iii	The gaseous and particulate matter emissions from various units shall conform to the standards prescribed by the A.P. Pollution Control Board. At no time, the particulate emissions from the cement plant shall exceed APPCB limit. Interlocking facility shall be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit(s) is shut down automatically.	Being complied. Stack emissions are within the norms and inter locking facility also provided.
iv	One ambient air quality monitoring station shall be installed in downwind direction. Ambient air quality including ambient noise levels shall 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 APPCB quarterly and to the Ministry's Regional Office at Bangalore half-yearly.	Being complied. Two nos On line real time CAAQM Station have been installed in up wind & downwind direction and 3 rd CAAQM Station at cross wind direction at mines area, installation work of which is under progress. Online real time monitoring data is transmitted to APPCB server & display board at factory gate continuously. Four nos AAQM stations installed at different locations & regular ambient air quality monitoring done. 2 nos CAAQM stations & 4 nos AAQM stations exhibited as per Annexure-B (i) . Ambient air, Stack emission level monitoring data is regularly submitted to APPCB, CPCB & MoEF.
v	The company must harvest the rainwater from the rooftops and storm water drains to	All the water from the roof tops, storm water drains lead to main drains

	recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	connecting to the mines water reservoir. Photographs of Rain water harvested at mine pit enclosed Annexure-B(ii)
vi	The company shall undertake eco development measures including community welfare measures in the project area.	A list of eco development measures including community welfare measures in the project area is given at Annexure B (iii) .
vii	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 shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Ruies, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Being complied. Noise control measures including acoustic hoods, silencers. Enclosures have been provided. Noise level monitoring data enclosed as Annexure –B(iv)
viii.	All recommendations made in the Corporate Responsibility for Environment Protection (CREP) for cement plants shall be implemented.	A compliance report of CREP is given at Annexure B (v)
ix.	Proper housekeeping shall be taken up. Regular annual medical examination of all the employees shall be carried out from the occupational health point of view and records maintained.	Being Complied. Medical Reports enclosed as Annexure- B(vi)
x.	A separate environmental management cell to carry out various management and monitoring functions shall be set up under the control of Senior Executive.	An organization chart of the Environmental Management Cell is given at Annexure B (vii) .
xi.	As proposed in EIA/EMP. Rs. 28.00 Crores and Rs. 0.95 Crores earmarked towards the capital cost and recurring cost/annum respectively for environment pollution control measures for the cement plant and Rs. 35.00 Lakhs and Rs. 23.2 Lakhs earmarked towards the capital cost and recurring cost/annum respectively for environment pollution control measures for the mine shall be suitably used to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	As on date, about Rs. 52.05 crores already invested on the air pollution equipments which were installed for expansion (ie RABH, ESP, Bag House and nuisance bag filters).Capital cost & Recurring cost data of Plant and Mines from April 2014 to September 2014 are attached as Annexure-B (viii) Funds provided for the maintenance of the above equipment shall not be diverted for any other purpose.
xii.	The Regional Office of this Ministry at Bangalore / CPCB / APPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical Interpretation shall be submitted to them regularly.	Agreed. Six monthly compliance reports is regularly being submitted.

xiii.	The 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.	Complied.
xiv.	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the A. P. Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in . This should be advertised 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 of the locality concerned and a copy of the same shall be forwarded to the Regional office at Bangalore.	Complied.

ANNEXURE-A(i)
(SPECIFIC CONDITION)

STACK MONITORING REPORT					
(APRIL 2014 TO SEPTEMBER 2014)					
	RABH mg/Nm³	COOLER mg/Nm³	COAL MILL mg/Nm³	CEMENT MILL-1 mg/Nm³	CEMENT MILL-2 mg/Nm³
MIN	7.29	10.17	5.83	6.44	8.22
MAX	18.92	29.17	22.87	16.74	22.65
AVERAGE	13.33	16.84	12.76	10.89	14.13
STD.DEV	3.55	4.98	4.03	3.37	4.25
COFF.OF VERIATION	0.27	0.30	0.32	0.31	0.30
98 PERCENTILE	18.88	27.19	21.45	16.22	21.73

Annexure-A (ii)
(SPECIFIC CONDITION)

Continuous Emission monitoring system installed at all major stacks



Continuous Emission monitoring Analyzer on Coal mill stack



Cooler ESP Stack



Continuous Emission monitoring Analyzer (RABH)



CEMS Analyzer on the Cement Mill-2 Stack

Annexure-A (iii)
(SPECIFIC CONDITION)

Air pollution control equipments



Reverse Air Bag House (RABH) Installed in Kiln & Raw mill section



Cooler ESP



Cement Mill-2 Bag filter



Bag Filter Installed on Crusher

Annexure-(iv)
(SPACIFIC CONDITION)

DCW- LIST OF BAG FILTERS

S.No	Department	Eqpt No.	Description	Model	Volume (m ³ /h)	No.of bags	No.of solenoid valves	Kw/rpm	Supplier
1	LS Crusher	211BF1	211BC-1 discharge venting	AJ-120-360	17500	120	12	37/1470	Thermax
2	LS Crusher	211BF2	211BC-2 discharge venting (Secondary crusher Bulding top)	AJ-120-360	17500	120	12	22/1470	Thermax
3	Pregrinder,RM-1	361BF3	RM-1 (VRPM) venting	AJ-360-360	39600	360	30	45/1470	Thermax
4	Pregrinder,RM-1	361BF4	RM-1 venting (Ball mill vent bag filter)	CE-02-330x3.6	50000	330	22	55/985	Clair
5	Pregrinder,RM-1	361BF5	Pregrinder department (361BC1,361BE3, 361BC4) venting.	AJ-120-360	17500	120	12	37/1470	Thermax
6	Pregrinder,RM-1	391BF1	Raw Meal Silo & Feed Elevator Venting	CE-02-064x3.6	10000	64	8	15/1450	Clair
7	Pregrinder,RM-1	391BF2	Raw Meal Silo-1 top			120	12		
8	Silo extraction & kiln feed	393BF1	Raw meal Silo discharge enmass conveyor	CE-02-036x3.6	3000	36	6	5.5/2905	IKN
9	Silo extraction & kiln feed	393BF2	Raw meal Silo discharge enmass conveyor	CE-02-036x3.6	3000	36	6	5.5/2905	IKN
10	Silo extraction & kiln feed	393BF3	Kiln feed Bin venting	CE-02-100x3.6	9500	100	10	15/1450	IKN
11	Silo extraction & kiln feed	393BF4	Kiln feed Bin venting	CE-02-100x3.6	9500	100	10	15/1450	IKN
12	Silo extraction & kiln feed	393BF5	PH bucket elevator air slide venting	CE-02-100x3.6	9500	100	10	15/1450	IKN
13	Silo extraction & kiln feed	393BF6	PH bucket elevator air slide venting	CE-02-100x3.6	9500	100	10	15/1450	IKN
14	Silo extraction & kiln feed	393BF7	PH Top Bucket elevator venting	CE-02-100x3.6	9500	100	10	15/1450	IKN
15	Silo extraction & kiln feed	393BF8	Raw meal Recirculation venting	CE-02-100x3.6	9500	100	10	15/1450	IKN
16	RABH	471BF1	Kiln/RM exhaust gases	CE-RABH-18 x 204	1317000	3672	-		Clair
17	Coal Mill-1	421BF1	Coal Mill-1 Vent bag house	TP-336-360	34650	336	24	75/1450	Thermax
18	Coal Mill-1	431BF1	Coal mill department venting bag filter	CE-02-040x3.6	6000	40	5	5.5	Clair
19	Coal Mill-2	422BF1	Coal Mill-2 VRM Vent bag house	CE-02-3x300x3.6	90000	900	60	360/780	Clair
20	Coal Crusher		Coal Crusher vent bag filter		6600	132	12	9.3/1455	Clair
21	Clinker storage & transportation	491BF1	491DP1 discharge transfer piont (cooler DPC)	CE-02-030 FM X 3.6	4000	30	5	5.5/1450	Clair
22	Clinker storage &	491BF2	Clnker Silo	AJ-168-360	25000	168	16	30/1450	Thermax

	transportation								
23	Clinker storage & transportation	511BF1	Clinker silo discharge DPC transfer point (511DPC3)	CE-02-030 FM X 3.6	4000	14	3	3.7/2850	Clair
24	Clinker storage & transportation	511BF2	Clinker silo discharge belt conveyor transfer point (511BC4)	CE-02-030 FM X 3.6	4000	30	5	30/1475	Clair
25	Clinker Pregrinder	561BF1	Transfer points	CE-02-030 FM X 3.6	4000	30			Clair
26	Clinker Pregrinder	561BF2	Clinker Pregrinder Venting (VRPM)	TP-588-360	59400	588	42		Thermax
27	Clinker Pregrinder	561BF3	Clinker Pregrinder Separator Venting (VRPM)	TP-798-360	82460	798	57		Thermax
28	Cement Mill-1	562BF1	Cement Mill-1 Mill Venting	TP-420-360	42650	420	30	75/986	Thermax
29	Cement Mill-1	562BF2	Cement Mill-1 Separator Venting	TP-420-360	42400	420	30		Thermax
30	Cement Mill-2	563BF1	Cement Mill-2 Mill Venting	TP-462-360	47400	462	33	75/986	Thermax
31	Cement Mill-2	563BF2	Cement Mill-2 separator venting	TP-588-360	60000	588	42		Thermax
32	Cement Mill	591BF1	Cement Silo 1&2 feed bucket elevator boot venting.			30	5		
33	Cement Mill	592BF1	Cement mill silo-1 top (flush mounted)				5	5.5/1455	Clair
34	Cement Mill	592BF2	Cement mill silo-2 top (flush mounted)				5	5.5/1455	Clair
35	Packing Plant	612 BF1	Packer 1 venting			195	15	30/1475	
36	Packing Plant	612 BF2	Packer 2 venting			180	15		Thermax
37	Packing Plant	612 BF2A	Packer 2 Bucket elevator venting			180	15		Thermax
38	Packing Plant	612BF3	Packer 3 venting	256-TA 12(6)		256	16	55/1485	
39	Packing Plant	612BF4	Packer 3 venting	121-TA 12(6)		121	11	30/1475	

FUGITIVE EMISSION CONTROL WITH PROPER MEASURES



Covered belt conveyors

FUGITIVE EMISSION CONTROL WITH PROPER MEASURES



Water sprinkling by water tanker



fly ash silo

FUGITIVE EMISSION CONTROL WITH PROPER MEASURES



Crushed lime stone yard



Covered Coal yard

Tree plantation inside the plant area



Annexure-A (vi)
(SPACIFIC CONDITION)

DURGA CEMENT WORKS

A Unit of Andhra Cements Limited
Gamalapadu(V), Dechepalli(M),Dist- Guntur
Andhra Pradesh

**AMBIENT AIR QUALITY MONITORING REPORT
APRIL 2014 TO SEPTEMBER 2014**

LOCATION -1 NEAR MINE PIT-1, (CROSS WIND)

S.N		PM-2.5 $\mu\text{g}/\text{m}^3$	PM-10 $\mu\text{g}/\text{m}^3$	SO ₂ $\mu\text{g}/\text{m}^3$	NO ₂ $\mu\text{g}/\text{m}^3$
1	MAX.	32.25	62.09	8.83	15.45
2	MIN.	12.72	41.5	3.19	4.93
3	AVG.	23.08	50.32	6.43	10.31
4	STD DEV.	3.85	4.83	1.21	1.83
5	COFF. OF VARIATION	0.17	0.10	0.19	0.18
6	98 PERCENTILE	31.77	59.83	8.48	14.97

LOCATION -2 NEAR NAGULERU RIVER PUMP HOUSE, (CROSS WIND)

S.N		PM-2.5 $\mu\text{g}/\text{m}^3$	PM-10 $\mu\text{g}/\text{m}^3$	SO ₂ $\mu\text{g}/\text{m}^3$	NO ₂ $\mu\text{g}/\text{m}^3$
1	MAX.	27.85	49.64	8.22	14.44
2	MIN.	10.27	34.62	2.96	5.39
3	AVG.	19.64	42.34	5.59	9.07
4	STD DEV.	3.66	3.63	1.49	2.12
5	COFF. OF VARIATION	0.19	0.09	0.27	0.23
6	98 PERCENTILE	27.01	49.06	8.11	13.48

LOCATION -3 NEAR CPP (TOWARDS GAMALAPADU VILLAGE), (UP WIND)

S.N		PM-2.5 $\mu\text{g}/\text{m}^3$	PM-10 $\mu\text{g}/\text{m}^3$	SO ₂ $\mu\text{g}/\text{m}^3$	NO ₂ $\mu\text{g}/\text{m}^3$
1	MAX.	34.69	64.96	8.86	14.89
2	MIN.	17.80	40.23	4.01	6.71
3	AVG.	25.40	52.10	6.57	10.62
4	STD DEV.	3.63	4.59	1.28	1.98
5	COFF. OF VARIATION	0.14	0.09	0.19	0.19
6	98 PERCENTILE	33.18	60.92	8.69	14.48

LOCATION -4 COLONY AREA (TOWARDS SRI NAGAR VILLAGE),(DOWN WIND)

S.N		PM-2.5 $\mu\text{g}/\text{m}^3$	PM-10 $\mu\text{g}/\text{m}^3$	SO ₂ $\mu\text{g}/\text{m}^3$	NO ₂ $\mu\text{g}/\text{m}^3$
1	MAX.	28.49	47.94	8.90	14.98
2	MIN.	12.97	33.25	2.96	5.66
3	AVG.	19.29	41.73	5.36	8.72
4	STD DEV.	3.19	3.89	1.74	2.30
5	COFF. OF VARIATION	0.17	0.09	0.32	0.26
6	98 PERCENTILE	24.81	47.74	8.69	14.48

Mines vehicles being maintained at the workshop



vehicles workshop



Tarpauline covered transportation

Annexure-A(viii)
(SPECIFIC CONDITION)



Concreted roads provided and maintained

'Permission' for the drawl of ground water from SGWB / CGWA

Sep 01 07 01:25p

Deputy Director 1

86882250930

GOVERNMENT OF ANDHRA PRADESH
GROUND WATER DEPARTMENT

FROM

TO

Sri B. Nagarajewara Rao,
M.Sc.,M.Sc.(Tech.)
Deputy Director
Ground Water Department
¼ Ramannapet
GUNTUR - 7

The Senior Vice President (Projects)
Andhra Cements Limited
2nd floor, Chandralok complex
111, S.D. Road
SECUNDERABAD-500 003.

Lr.No.2/ACL/Hg/2007/

Dated:01.09.2007

Sir,

Sub: Ground Water Department, Guntur—Report on Ground Water
Investigations conducted for M/s. Andhra Cements Limited, Durga
Cement works, Dachepally (v) & (M), Guntur District—
Communication of Recommendations—Regarding.

Ref: 1. This office Lr.No.2/ACL/Hg/2007/390/dt.27.8.07.

2. Director, GWD, Hyderabad memo No.6818/Hg.II(1)07,d.31.8.07.

--o--

With reference to the above subject, the recommendations are approved by the
Director, GWD, Hyderabad through reference 2nd cited are as follows:

S. No	VES No.	Type of well recommended	Depth in m.	Dia in mm	Expected yield in lph	Remarks
1	5	Bore well	80.0	165	7,000	Expected yields from the existing 5 bore wells are between 5000 to 7000 lph.
2	7	Bore well	80.0	165	7,000	
3	9	Bore well	80.0	165	5,000	
4	5 existing bore wells				30,000	Recommended for 10 hours of pumping/day only

The total quantum of water available from the existing 5 wells and recommended 3 wells will be in the order of 490m³/day and the balance requirement can be met from the de-watering of mines.

The recommended well site locations are shown in the enclosed map. Further, it is to inform that the recommendations are made in the light of APWALTA and further procedure under APWALTA may be followed during execution from your end.

Yours faithfully,

B. N. Rao
DEPUTY DIRECTOR

Ends: As above.

Copy submitted to the Director, GWD, Hyderabad for favour of information.

ANNEXURE – A (X)
(SPECIFIC CONDITION)



Mine out area used as a water reservoir

STP OF 300 KLD INSTTALED AT DCW COLONY



STP WATER TESTING REPORT



Sree Mahendra
ANALYTICAL SERVICES
Genuine Quality Assurance
A.P Govt Regd No 591/12
ISO 9001:2008 Certified Laboratory

REGD. Off: 1-7-292, Chaitanyapur,
Opp: Geetha Hospital, Dilshuknagar,
Hyderabad-500035
Ph: 040-64609596, Cell: 9866609596
E-mail: mail@smasquality@gmail.com
Web site: www.smaslabs.com

CERTIFICATE OF ANALYSIS

Test Report
Report Ref: SMAS/W/033-09-029/14

In accordance with the order of M/s. Revolve Engineers Pvt.Ltd, Hyderabad. We carried out the following analysis for the given sample.

SAMPLE DETAILS:	
Sample lab code	: 1807
Name of the Site	: Andhra cements
Date of Receipt	: 29.09.2014
Job Ref No	: SMAS/W/033-09-029/14
Date of Issue	: 06.10.2014
Sample Particulars	: COLLECTION WATER (Code No:367), FINAL WATER (Code No:369)
Sampling	: By Client
Tests Required	: As per mail
Analysis Started on	: 29.09.2014
Analysis Completion Date	: 06.10.2014
Sample Condition	: Intact

SAMPLE ANALYSED AS RECEIVED BASIS

TEST RESULTS

The above sample was analysed by us and the results are as follows:

S.No	TEST PARAMETERS	UNITS	RESULTS		APPCB STANDARDS
			In let-367	Out let-369	
1.	pH	--	7.22	7.00	> 6.5 & < 8.5
2.	Total Dissolved Solids (@ 180°C)	ppm	1516	1042	< 2100
3.	Total Suspended Solids (@ 105°C)	ppm	38	60	< 200
4.	Chemical oxygen demand	ppm	190	54	< 250
5.	Biological oxygen demand (5 day @ 27°C)	ppm	36	Nil	< 100
6.	Chlorides as Cl	ppm	369.2	284.0	< 600
7.	Sulphates as SO ₄	ppm	24.1	102.0	< 1000
8.	Oil & Grease	ppm	< 1.00	< 1.00	< 10.0
9.	Total hardness as CaCO ₃	ppm	488	384	Not Specified
10.	Calcium as Ca	ppm	144.0	118.4	Not Specified
11.	Total Alkalinity as CaCO ₃	ppm	440.0	220.0	Not Specified
12.	Nitrates as NO ₃	ppm	2.86	0.01	Not Specified
13.	Color	--	Colorless	Colorless	Not Specified
14.	Odour	--	Agreeable	Agreeable	Not Specified
15.	Turbidity	NTU	22.1	1.10	Not Specified
MICROBIOLOGICAL PARAMETERS					
16.	Coliform Bacteria		06	Nil	500MPN/100ml
17.	E.coli		Absent	Absent	Not Specified

Note: 1. The sample is analyzed as per APHA & CPCB Manual.
2. The certificate relates only to the sample tested.



M. Akhal
Authorized Signatory

TESTING SERVICES

Water, Food Materials, Oils, Cakes, Rice Bran, Poultry & Animal Feed
Soil, Chemicals, Metals, Ores, Industrial effluents
www.smaslabs.com

Annexure-A (xii)
(SPECIFIC CONDITION)

GROUND WATER LEVEL REPORT

PRE MONSOON SEASON

24.04.2013

S.N	Location	Direction	Distance from Plant	Bore Well/Open well	Depth of Water from ground Level (Meter)
1.	Plant site (Near Security man Gate)	S	-	Bore Well	12
2.	Srinagar Village	SW	1.5 Km	Bore Well	19
3.	Ramapuram Village	NW	6.0 KM	Bore Well	23
4.	Gamalapadu Village	SE	5.0 KM	Bore Well	8

GROUND WATER LEVEL REPORT

MONSOON SEASON

02.08.2014

S.N	Location	Direction	Distance from Plant	Bore Well/Open well	Depth of Water from ground Level (Meter)
1.	Plant site (Near Security man Gate)	S	-	Bore Well	11
2.	Srinagar Village	SW	1.5 Km	Bore Well	18
3.	Ramapuram Village	NW	6.0 KM	Open Well	21
4.	Gamalapadu Village	SE	5.0 KM	Bore Well	5

WATER TESTING REPORT OF DURGA CEMENT WORKS

A Unit of Andhra Cements Limited

Sample received: 22.04. 2014

Sample analyzed by: Environment Lab JBCP

S.N	Parameter	Location	Sri nagar Village	Gamalapa du Village	Colony	Club	Krishnan	DCW	IS 10500 Drinking Water Standers Limit	
		Type of Water	Bore				River	Drinking Water	Desirable Limit	Permissible limit
1.	pH		8.56	7.80	8.10	8.45	7.8	7.5	6.5 to 8.5	6.5 to 8.5
2.	Conductivity (µs)		1856	1963	2045	1676	316	39.5	NA	NA
3.	Turbidity(NTU)		1.5	1.6	1.7	1.8	1.95	0.61	5-10	5-10
4.	Total Hardness (mg/l)		547	513	605	654	149	91	300	600
5.	Calcium Hardness (mg/l)		463	455	524	580	126	78	75	200
6.	Magnesium Hardness (mg/l)		84	58	81	74	23	13	30	100
7.	TDS (mg/l)		1326	1425	1356	1457	281	34.2	200	2000
8.	TSS (mg/l)		-	-	-	-	67	-	100	100
9.	Alkalinity (mg/l)		172	182	215	226	76	41	200	600
10.	Chlorides(mg/l)		79	105	86	93	70	12	250	1000
11.	Fluorides (mg/l)		0.1	0.2	0.3	0.4	0.2	0.3	0.5	1.5
12.	Arsenic (mg/l)		0.002	0.005	0.003	0.004	0.002	<0.005	0.05	0.05

WATER TESTING REPORT OF DURGA CEMENT WORKS

A Unit of Andhra Cements Limited


Sample received: 21.07. 2014

Sample analyzed by: Environment Lab JBCP

S.N	Parameter	Location	Sri nagar Village	Gamalapadu Village	Colony	Club	Krishnan	DCW	IS 10500 Drinking Water standers Limit	
									Desirable Limit	Permissible limit
		Type of Water	Bore				River	Drinking Water		
1.	pH		8.10	8.58	7.90	8.36	8.10	7.85	6.5 to 8.5	6.5 to 8.5
2.	Conductivity (μ s)		1658	1763	1475	1463	362	43.6	NA	NA
3.	Turbidity(NTU)		1.8	1.7	1.9	1.6	1.75	0.58	5-10	5-10
4.	Total Hardness (mg/l)		657	589	629	583	175	82	300	600
5.	Calcium Hardness (mg/l)		592	502	551	532	155	65	75	200
6.	Magnesium Hardness (mg/l)		65	87	78	51	20	17	30	100
7.	TDS (mg/l)		1256	1312	1365	1205	263	85.6	200	2000
8.	TSS (mg/l)		-	-	-	-	13	-	100	100
9.	Alkalinity (mg/l)		162	174	201	171	71	42	200	600
10.	Chlorides(mg/l)		47	51	43	53	65	22	250	1000
11.	Fluorides (mg/l)		0.2	0.1	0.2	0.3	0.2	0.4	0.5	1.5
12.	Arsenic (mg/l)		0.002	0.004	0.005	0.003	0.005	<0.005	0.05	0.05

Annexure –A (xiii)
(SPACIFIC CONDITION)

License from chief controller of Explosives.


GOVERNMENT OF INDIA
MINISTRY OF COMMERCE & INDUSTRY
PETROLEUM AND EXPLOSIVES SAFETY ORGANISATION(PESO)
(Formerly Department of Explosives)
5th Floor, A-Block, CGO Complex,
Seminary Hills, Nagpur 440006
Tele: 2510248 Fax: 2510577
Email: explosives@explosives.gov.in



No:E/HQ/AP/22/93(E1673) Dated : 27/03/2014

To,
Andhra Cements Limited,
Durga Cement Works, P.O. Dachepalli, Guntur Dist. 522414, A.P.
Distt. , State. , Pincode-522414

Subject: **Possession for Use of Explosives from magazine at Survey No(s):-611/18, Village/Town.
GAMALAPADU, Distt. GUNTUR, State Andhra Pradesh Licence No.: E/HQ/AP/22/93(E1673)
granted in Form LE-3 of Explosives Rules, 2008 - Renewal regarding**

Sir(s),

Reference to your letter No.: nil dated: 27/03/2014, the subject licence duly renewed upto **31/3/2015** and issued in Form LE-3 of Explosives Rules, 2008 is forwarded herewith.

For further renewal of licence, please submit the following documents so as to reach **The Dy. Chief Controller of Explosives, Secunderabad** on or before **31/3/2015**.

- Application in Form RE-1 duly filled in and signed.
- Licence fees for one to five years in the form of demand draft drawn on any Nationalized Bank in favour of **The Chief Controller of Explosives, Nagpur (M.S.)** payable at **Nagpur**.
- Original licence with approved plan.
- In this connection, please also refer to Rule 112 of Explosives Rules, 2008.

- Indent for purchase of explosives shall be placed in RE-11 with the supplier and copy of the same shall be sent to this office.(Not applicable for fireworks store house)
- Please submit quarterly returns of explosives in RE-7 at the end of every quarter so as to reach The Dy. Chief Controller of Explosives, Secunderabad by 10th of the succeeding quarter.(Not applicable for fireworks store house)
- All blasting operations shall be carried out by a competent person holding a valid shot firer's permit granted under above rules. However, blasting operations in mines coming under the purview of the Mines Act 1952, the blaster shall have qualifications prescribed in the regulations framed under the said Act.

Enclosures :

Yours faithfully,

(T R Thomas)
Chief Controller of Explosives

Copy Forwarded to:

1. **District Magistrate, GUNTUR (Andhra Pradesh) for information.**
2. **The Jt. Chief Controller of Explosives, South Circle, Chennai.**
3. **The Dy. Chief Controller of Explosives, Secunderabad.**

Chief Controller of Explosives

[For more information regarding status, fees and other details, please visit our web site <http://peso.gov.in>]

3353

LICENCE FORM LE-3
(See article 3(a) to (d) of Part 1 of Schedule IV of Explosives Rules, 2008)

Licence to possess : (c) for use, explosives of class 1, 2, 3, 4, 5, 6 or 7 in a magazine



Licence No. : E/HQ/AP/22/93(E1673)
Annual Fee Rs:14000/-

1. Licence is hereby granted to : **Andhra Cements Limited (Occupier : D.Somaiah),
Durga Cement Works, P.O. Dachepalli, Guntur Dist. 522414, A.P., Town/Village -
District-, State-, Pincode - 522414**
2. Status of licensee : **Company**
3. Licence is valid only for the following purpose : possess for use of **Nitrate Mixture, Detonating Fuse, Detonators, Safety Fuse,**
4. (a) Licence is valid for the following kinds and quantity of explosives:

Sr. No.	Name and Description	Class & Division	Sub-division (If any)	Quantity at any one time
1.	Nitrate Mixture	2,0	0	10000 Kg.
2.	Detonating Fuse	6,2	0	12000 Mtrs
3.	Detonators	6,3	0	44000 Nos.
4.	Safety Fuse	6,1	0	10000 Mtrs

(b) Quantity of explosives to be purchased in a calendar month [applicable for licence under article 3(b) and (c)] : **3 times as above.**

5. The licensed premises shall conform to the following drawing(s):

Drawing No : E/HQ/AP/22/93(E1673) dated : 03/10/1994

6. The licensed premises are situated at following address:

Survey No(s). 611/18 , Town/Village : GAMALAPADU

Police Station : DACHEPALLI

PinCode :

Phone :

District : GUNTUR

E-Mail :

State : Andhra Pradesh

Fax :

7. The licensed premises consist of following facilities : **A MAIN MAGZINE ROOM A LOBBAY AND DETONATES STORE ROOM**

8. The licence is granted subject to the provision of Explosives Act 1884 as amended from time to time and the Explosives Rules, 2008 frame there under and the conditions, additional conditions and the following Annexures.

(1) Drawings (showing site, constructional and other details) as stated in serial No. 5 above.

(2) Conditions and Additional Conditions of this licence signed by the licensing authority.

(3) Distance Form DE-2

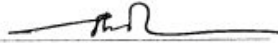
9. This licence shall remain valid till **31st day of March 1994**

This licence is liable to be suspended or revoked for any violation of the Act or Rules framed there under or the conditions of this licence set forth under Set VIII, wherever applicable, referred to in Part 4 of Schedule V or if the licensed premises are not found conforming to the description shown in the plans and Annexure attached hereto.

The Date: 03/10/1994

Sd
Chief Controller of Explosiv

Endorsement for renewal of licence:

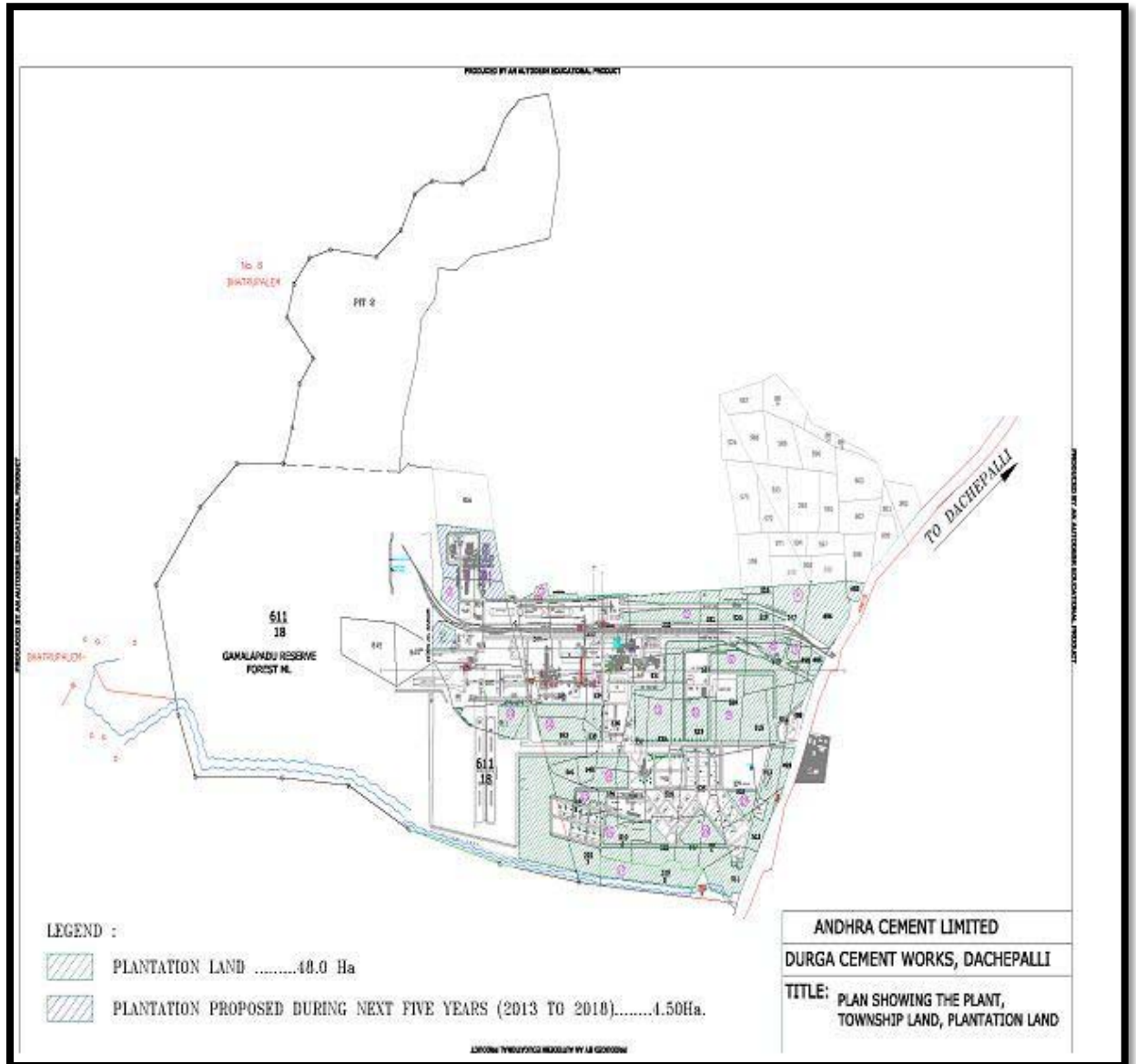
		
<u>Date of Renewal</u>	<u>Date of Expiry</u>	<u>Signature of licensing authority</u>
27/03/2014	31/03/2015	Chief Controller of Explosives, Nagpur

Statutory Warning : Mishandling and misuse of explosives shall constitute serious criminal offence under the law.

Annexure –A (xiv)
 (SPECIFIC CONDITION)

Status of Green belt development (Plant & Colony)

Total Industrial Land area: - 141.574 Ha.
 Existing green belt area in plant area - 48.5 Ha

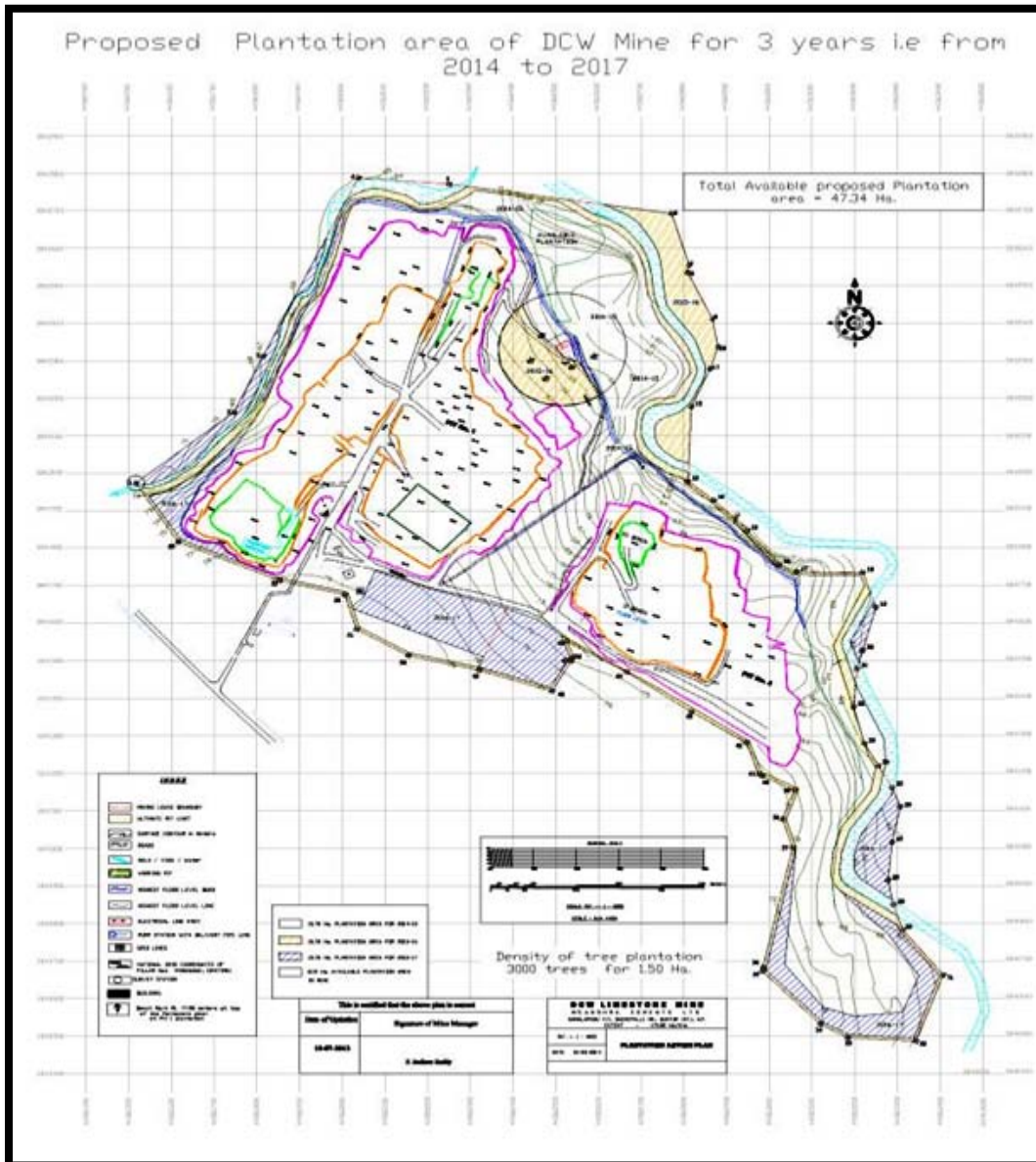




Tree Plantation DCW plant area

Status of Green belt development (Mines)

Total mine lease area:	- 170.22 Ha
Green belt up to March 2014	- 4.69 Ha.
Tree plantation from April 2014 to September 2014	- 2.47 Ha.
Existing green belt area	- 7.16 Ha.
Name of tree planted	- Neem,Cono Carpues
No. of tree planted	- 660 nos





Tree Plantation at mines area

Greeb belt development



Tree Plantation inside the factory premises



Tree Plantation in colony area

FLORA AND FAUNA STUDIES REPORT OF AROUND DURGA CEMENT WORKS

An ecological survey of the study area was conducted during Pre monsoon season period to assess the existing floristic structure and record the biological resources.

Terrestrial Ecological Studies

Objectives of Ecological Study

The objectives of the present study are intended to:

- Generate baseline data from field observations from various terrestrial ecosystems; and
- Compare the data so generated with authentic past records to understand changes

Methods adopted for the Study

To accomplish the above objectives, a general ecological survey covering an area of 10 km radius of Durga Cement Works.

- Reconnaissance survey for selection of sampling sites
- Generation of primary data to understand baseline ecological status, important floristic elements
- Generation of primary data to understand baseline fauna structure
- Collection of secondary data from forest working plan and Gazetteers

Criteria adopted for selection of sampling location

Reconnaissance survey was conducted to list of plant species on the basis of following criteria:

- In DCW project area
- Downwind direction of the DCW project area and
- Upwind direction of the DCW project lease area

A preliminary survey was made and six location for detailed study within 10 KM radius were selected. The selected location are given in Table

Name of Village	Plant	
	Distance (km)	Direction
Kotayyanagram	2.5	SE
Gamalpadu	2.7	SSE
Madinapadu	4.9	E
Srinagar	0.8	NW
Ramapuram	3.4	N
Pondugala	4.9	WSW

- Preparing a general checklist of all plants encountered in the study area. This would indicate the biodiversity for wild and cultivated plants. The plants so encountered were classified into life form spectrum according to the classification of Raunkiaer's (Braun Blanquet) classification of life form spectrum.
- Phytosociological studies by using list count quadrat method. Sufficient number of quadrates of 100 m² size was employed for this. The number of quadrates depended on actual field requirements.
- Estimating basal areas of trees and shrubs at breast height [132 cm from ground or above buttresses)
- Herbaceous flora was studied by taking 10 quadrates in each location, each quadrat having 10 m²
- Determining frequency, abundance, relative frequency, relative density, relative dominance and importance value indices using Mueller-Dombois-Ellenberge [1974] Method
- Determining the bird population of migratory and local birds by taking 10 random readings at every location
- Observing mammals, amphibians and reptiles, noting their calls, droppings, burrows, pugmarks and other signs
- Local inhabitants were interviewed for uses of plants and animals and to get ethno biological data.

Floristic Composition-Primary Survey

Field survey conducted in pre monsoon season revealed a total of 251 species of plants of which 112 were phanerophytes, 108 were therophytes, 22 hemicryptophytes, and 9 geophytes. Among angiosperms 112 were woody members and rest belongs to herbaceous plants

Flora recorded from core zone area

The recorded list of plant species in core zone are presented in Table

FLORISTIC COMPOSITION IN CORE ZONE

Sr.No.	Technical Name	Family	Life Form
I. Agricultural Crops			
1	<i>Sorghum vulgare</i>	Poaceae	Hemicryptophyte
2	<i>Triticum vulgare</i>	Poaceae	Hemicryptophyte
3	<i>Zea mays</i>	Poaceae	Hemicryptophyte
4	<i>Oryza Sativa</i>	Poaceae	Hemicryptophyte
5	<i>Pennisetum typhoideum</i>	Poaceae	Hemicryptophyte
II. Commercial crops (including Vegetables)			
6	<i>Abelmoschus indicus</i>	Malvaceae	Therophyte
7	<i>Allium cepa</i>	Liliaceae	Geophyte
8	<i>Arachis hypogea</i>	Fabaceae	Therophyte
9	<i>Cajanus cajan</i>	Fabaceae	Therophyte
10	<i>Carica papaya</i>	Caricaceae	Therophyte
11	<i>Catharanthes pusillus</i>	Compositae	Therophyte
12	<i>Cicer arietinum</i>	Fabaceae	Hemicryptophyte
13	Citrus lemon	Ruataceae	Therophyte
14	<i>Colacasia esculenta</i>	Areaceae	Geophyte
15	<i>Mangifera indica</i>	Anacardiaceae	Phanerophyte
16	<i>Memordia charantia</i>	Cucurbitaceae	Therophyte
17	<i>Psidium guava</i>	Myrtaceae	Phanerophyte
III. Plantations			
18	<i>Acacia nilotica</i>	Mimosaceae	Phanerophyte
19	<i>Azadirachta indica</i>	Meliaceae	Phanerophyte
20	<i>Bambusa arundances</i>	Poaceae	Phanerophyte
21	<i>Butea superba</i>	Caesalpinaceae	Phanerophyte
22	<i>Leucena leucophloe</i>	Caesalpinaceae	Phanerophyte
IV. Natural Vegetation / Forest Type			
23	<i>Abrus precatorius</i>	Fabaceae	Therophyte
24	<i>Abutilon indicum</i>	Malvaceae	Phanerophyte
25	<i>Acacia nilotica</i>	Mimosaceae	Phanerophyte
26	<i>Acacia leucophloe</i>	Mimosaceae	Phanerophyte
27	<i>Argemone mexicana</i>	Papevaraceae	Phanerophyte
28	<i>Blepharis madaraspatens</i>	Acanthaceae	Therophyte
29	<i>Boerheavia diffusa</i>	Nyctaginaceae	Therophyte
30	<i>Caesalpina pulcherima</i>	Caesalpinaceae	Phanerophyte
31	<i>Calotropis procera</i>	Asclpiadaceae	Phanerophyte
32	<i>Canna indicda</i>	Cannaceae	Therophyte
33	<i>Capparis aphylla</i>	Capparidaceae	Therophyte
34	<i>Carissa carandus</i>	Apocyanaceae	Phanerophyte
35	<i>Cassia auriculata</i>	Caesalpinaceae	Therophyte
36	<i>Cassia occidentalis</i>	Caesalpinaceae	Therophyte
37	<i>Cleome gynandra</i>	Caesalpinaceae	Therophyte
38	<i>Cleome Viscose</i>	Capparidaceae	Therophyte
39	<i>Commelina benghalensis</i>	Commelinaceae	Therophyte
40	<i>Crotalaria medicagenia</i>	Fabaceae	Therophyte
41	<i>Croton bonplandinum</i>	Amarylidaceae	Therophyte
42	<i>Cuscuta reflexa</i>	Cuscutaceae	Epiphyte
43	<i>Datura metal</i>	Solanaceae	Therophyte
44	<i>Desmodium triflorum</i>	Asclepiadaceae	Therophyte
45	<i>Eclipta alba</i>	Compositae	Heliophyte
46	<i>Eclipta prostrate</i>	Compositae	Hemicryptophyte

47	<i>Embllica officinale</i>	Euphorbiaceae	Phanerophyte
48	<i>Euphorbia antiquorum</i>	Euphorbiaceae	Phanerophyte
49	<i>Euphorbia hirta</i>	Euphorbiaceae	Therophyte
50	<i>Euphorbia neruri</i>	Euphorbiaceae	Therophyte
51	<i>Euphorbia nivula</i>	Euphorbiaceae	Therophyte
52	<i>Euphorbia tricauli</i>	Euphorbiaceae	Hemicytrophite
53	<i>Evolvulus alsinoides</i>	Convolvulaceae	Therophyte
54	<i>Ficus benghalensis</i>	Moraceae	Phanerophyte
55	<i>Ficus hispida</i>	Moraceae	Phanerophyte
56	<i>Gossypium herbaceum</i>	Malvaceae	Therophyte
57	<i>Grewia abutifolia</i>	Tiliaceae	Phanerophyte
58	<i>Hibiscus micronthus</i>	Malvaceae	Therophyte
59	<i>Jatropha gossypifolia</i>	Euphorbiaceae	Therophyte
60	<i>Justia diffusa</i>	Acanthaceae	Therophyte
61	<i>Lantana camara</i>	Verbinaceae	Phanerophyte
62	<i>Leucas aspera</i>	Labiatae	Therophyte
63	<i>Loranthus sp</i>	Loranthaceae	Epiphyte
64	<i>Ocimum canum</i>	Labiatae	Therophyte
65	<i>Ocimum sanctum</i>	Labiatae	Therophyte
66	<i>Oldenlandia corymbosa</i>	Rubiaceae	Therophyte
67	<i>Opuntia elator</i>	Cacataceae	Therophyte
68	<i>Oxalis corniculata</i>	Oxalidaceae	Therophyte
69	<i>Parkinsonia aculata</i>	Mimosaceae	Phanerophyte
70	<i>Parthenium hysterophrus</i>	Compositae	Therophyte
71	<i>Phoenix aculis</i>	Palmae	Phanerophyte
72	<i>Pithocolobium dulce</i>	Mimosaceae	Phanerophyte
73	<i>Portulaca oleracea</i>	Portulaccaceae	Therophyte
74	<i>Prosopis spicegera</i>	Mimosaceae	Phanerophyte
75	<i>Sida cordifolia</i>	Malvaceae	Phanerophyte
76	<i>Solanum nigrum</i>	Solanaceae	Therophyte
77	<i>Solanum xanthocarpum</i>	Solanaceae	Therophyte
78	<i>Tamarindus indica</i>	Caesalpinaceae	Phanerophyte
79	<i>Triumferta</i>	Tiliaceae	Therophyte
80	<i>Vernonia cinera</i>	Compositae	Therophyte
81	<i>Vitex negungo</i>	Verbinaceae	Therophyte
82	<i>Xanthium strumariumk</i>	Compositae	Therophyte
83	<i>Zizyphus jujube</i>	Rhamnaceae	Phanerophyte
84	<i>Zizyphus nummularis</i>	Rhamnaceae	Phanerophyte
V.Grasslands			
85	<i>Apluda mutica</i>	Poaceae	Hemicytrophite
86	<i>Aristida adscensionsis</i>	Poaceae	Hemicytrophite
87	<i>Cenchrus cillaris</i>	Poaceae	Therophyte
88	<i>Cyperus triceps</i>	Cyperaceae	Therophyte
89	<i>Eragrostis bifera</i>	Poaceae	Therophyte

FAUNA RECORDED FROM CORE ZONE

Extensive field studies were conducted in pre-monsoon season to know the present status of fauna of the area .Apart from that; secondary data was collected by mode of interaction of local elderly people and forest working plans of Guntur dist.

The recorded list of Fauna species in core zone are in Table:

Technical Name	English Name /Local Name	Conservation status as per Wild Life protection Act 1972
Mammals		
Lapus nigricollis	Indian Hare	Sch-IV
Funumbuls Palmarum	Squirrel	Sch-IV
Hystrix indica	Porcupine	Sch-IV
Birds		
Milyus migrans	Common Kite	Sch-IV
Corvus corvus	Jungle crow	Sch-IV
Corvus splendens	House Crow	Sch-V
Aegithina tiphia	Iora	Sch-IV
Pycnonotus cafer	Red vented bulbul	Sch-IV
Columbus livibus	Rock pigeon	Sch-IV
Lalage sykesi	Black headed cochoo Shrike	Sch-IV
Dicrurus macrocerus	Black Drongo	Sch-IV
Oriolus oriolus	Indian Oriole	Sch-IV
Acridotheres tristis	Common myna	Sch-IV
Ploceus philippines	Weaver bird	Sch-IV
Uroloncha striata	Spotted munia	Sch-IV
Passer domesticus	House Sparrow	Sch-IV
Megalaima merulinus	Indian Cuckoo	Sch-IV
Eudynamis Scolopaceus	Koel	Sch-IV
Psittacula Krammeri	Rose ringed parakeet	Sch-IV
Alcedo atthis	Common King fisher	Sch-IV
Tylo alba	Barn Owl	Sch-IV
Astur badius	Shikra	Sch-IV
Lobvanella indicus	Redwattled Lapwing	Sch-IV
Bubulcus ibis	Cattle Egret	Sc-IV
Gallinula Chlorpus	Moore hen	Sc-IV
Reptiles		
Chameleon Zeylanicus	Lizard	Sc-IV
Ptyas mucosus	Rat snake	Sc-III
Naja naja	Cobra	Sc-IV
Bungarus candidus	Krait	Sc-IV
Vipera russeli Viper	Viper	Part-II of Sch-II
Butterflies		
Euploca cora	-	Sc-IV
Euploca crassa	-	Sc-IV
Oeuploca dicciotianua	-	Sc-IV
Graphium agamernnos	Tailed jay	Sc-IV
Papilo polymnstor		Sc-IV
Junonia atlites	Grey Pansey	Sc-IV

Durga Cement Works is making all efforts to increase the plantation in colony, plant and Mines area. Dense plantation will conserve flora and fauna.

Annexure- A(xvii)
(SPECIFIC CONDITION)

CFO Mines from APPCB



ANDHRA PRADESH POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN, A-3, INDUSTRIAL ESTATE,
SANATHNAGAR, HYDERABAD - 500 018.

Phone: 040-23887500
Fax: 040- 23815631
Grams : Kalusya Nivarana
Website : appcb.ap.nic.in

RED CATEGORY
RENEWAL OF CONSENT ORDER
BY REGISTERED POST WITH ACKNOWLEDGEMENT DUE

Consent Order No : APPCB/VJA/GTR/16829/HO/CFO/2014-

Date : 23.01.2014

(Consent Order for Existing/New or altered discharge of sewage and/or trade effluents/outlet under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and amendments thereof, Operation of the plant under section 21 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof.

CONSENT is hereby renewed under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974, under section 21 of Air (Prevention & Control of Pollution) Act 1981 and the rules and orders made thereunder to:

M/s. Andhra Cements Limited,
(Mines Division)
Gampalapadu(V),
Dachepalli (M),
Guntur District-522414

E-mail: sastry.akella@jalindia.co.in

(Hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant to discharge the effluents from the outlets and the quantity of emissions per hour from the chimneys as detailed below:

I. Outlets for discharge of effluents:

Outlet No.	Outlet Description	Max Daily Discharge	Point of Disposal
1	Domestic Effluents	4.0 KLD	Septic Tank followed by soak pit.

This order is subject to the provisions of the Acts and orders made there under and further subject to the terms and conditions incorporated in the schedule A and B enclosed to this order.

This consent order is valid for Mining of Limestone to the quantities indicated below only:

S.No	Product	Quantity
1	Lime Stone mining	3.0 Million Tons Per Annum

The consent shall be valid for a period ending with the 30th Day of June 2016.

Sd/-
MEMBER SECRETARY

To
M/s. Andhra Cements Limited,
(Mines Division)
Gampalapadu(V),
Dachepalli (M),
Guntur District-522414

//T.C.F.B.O//


JOINT CHIEF ENVIRONMENTAL ENGINEER
(UNIT - IV)

SCHEDULE - A

1. The applicant shall make applications **through online** for renewal of Consent (under Water and Air Acts) and Authorisation under HWM Rules **at least 120 days before the date of expiry of this order**, along with prescribed fee under Water and Air Acts for obtaining Consent & HW Authorisation of the Board along with detailed compliance to the conditions stipulated in the CFO and HWA Order.
2. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules 1982, to such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of the Water(Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air(Prevention and Control of Pollution) Act, 1981.
3. The industry may explore the possibility of tapping the solar energy for their energy requirements.
4. All other conditions stipulated in the Schedule - A of the earlier combined CFO & HWA order No: **APPCB/VJA/GTR/534/HO/CFO/2008, dated 18.11.2008** remains same. The industry shall ensure consistent compliance of each condition of Schedule-A.

SCHEDULE - B

1. The effluent discharged shall not contain constituents in excess of the tolerance limits mentioned below:

Outlet No.	Parameter	Limiting Standards
1.	pH	5.50 – 9.00
	Total Suspended Solids (at 103 – 105°C)	200.0 mg/l
	Oil & Grease	10.0 mg/l
	Chemical Oxygen Demand (COD)	250.0 mg/l
	BOD	100.0 mg/l

2. The industry shall take steps to reduce water consumption to the extent possible and consumption shall NOT exceed the quantities mentioned below:

S.No	Purpose	Quantity
1.	Process & Washing (Sprinkling in Mining)	55.0 KLD
2.	Domestic	5.0 KLD
Total:		60.0 KLD

3. Separate water meters with necessary pipeline shall be provided for assessing the quantity of water used for each of the purposes mentioned below:
 1. Spraying in mine pits
 2. Domestic purposes
4. The industry shall file the water cess returns in Form-I as required under section (5) of Water (Prevention and Control of Pollution) Cess Act, 1977 on or before the 5th of every calendar month, showing the quantity of water consumed in the previous month along with water meter readings. The industry shall remit water cess as per the assessment orders as and when issued by Board.
5. The industry shall comply with ambient air quality standards of PM₁₀(Particulate Matter size less than 10µm) - 100 µg/ m³; PM_{2.5}(Particulate Matter size less than 2.5 µm) - 60 µg/ m³; SO₂ - 80 µg/ m³; NO_x - 80 µg/m³, outside the factory premises at the periphery of the industry. Standards for other parameters as mentioned in the National Ambient Air Quality Standards CPCB Notification No.B-29016/20/90/PCI-I, dated 18.11.2009.
Noise Levels: Day time (6 AM to 10 PM) - 75 dB (A)
Night time (10 PM to 6 AM) - 70 dB (A).
6. The industry shall not increase the capacity beyond the permitted capacity mentioned in this order, without obtaining CFE & CFO of the Board.
7. The industry shall install one AAQM station on the upwind side of the village.
8. The industry shall submit Bank guarantee of Rs. 11.7 Lakhs with validity of 3 years for development of green belt in additional area of 117 Acres to meet the norms. Bank Guarantee will be forfeited if the green belt was not developed within 3 years. The industry shall submit action plan with time frames for development of green belt of 117 acres.
9. The industry shall earmark an amount of Rs. 3.0 lakhs per annum for 10 years towards the Enterprise Social Responsibility (ESR) activities. The industry shall earmark this amount towards the Enterprise Social Responsibility (ESR) activities and spend the amount under ESR activities through ESR/CSR Cell in the office of the District Collector.

10. The industry shall develop green belt and maintain it on the over burden dumps, haul roads and also along the boundary of the mining area to control air pollution in the surrounding area.
11. All waste material shall be disposed properly within the Mining Lease Area.
12. All mining rejects, irrespective of size and quality, shall be hauled away from the mine.
13. The natural drainage of water shall be maintained. The Dump sites shall not cross any streams. Water flow from the Mine Lease Area shall be free of suspended matter and conform to prescribed water quality standards even during the monsoon.
14. Plantation with native species shall be raised along the roads, dump sites to develop a wide greenbelt all around the ML area in consultation with local DFO/ Agriculture department.
15. Dumping of overburden shall be like a retreating pyramid bench formation and shall carry physical and biological reclamation concurrently. Dumps shall be contoured and provided with relief control and stabilised. Dump tops shall be compacted, leveled and provided with proper drainage.
16. Soil binding and nitrogen fixing plants shall be planted in the Mine Lease Area. Biological reclamation shall be done in two phases. The first phase shall be with appropriate quick growing grass and shrubs and in the second phase slower growing native shrubs and trees shall be grown.
17. Check dams and filter beds shall be constructed to protect from stream runoffs.
18. Ground water table levels shall be monitored every season. Any lowering of the ground water table in comparison to the previous season shall be reported to the Board immediately. Discarded pits shall be allowed to fill with water.
19. Vehicles shall be well maintained and engine idling shall be minimized. Vehicle cabs shall be made dust-proof.
20. Drills shall be water-jacketed. Local exhaust ventilation systems shall be installed at dust generation points and the dust shall be fed to a dust collection system.
21. Blasting shall be sequential in such a manner as to achieve minimum vibration.
22. The industry shall maintain four ambient air quality monitoring stations in the core zone as well as in the buffer zone for monitoring RPM, SPM, NOx and SO2. Location of the ambient air quality stations shall be decided based on metrological data, topographical features and environmentally and ecologically sensitive targets and the frequency of monitoring shall be undertaken in consultation with the APPCB
23. A separate environmental management cell with suitable qualified personnel shall be set up under the control of a senior executive who will report directly to the head of the organization.
24. The industry shall comply with all other conditions stipulated in the CFE order dated 27-06-2008 including conditions Nos. 4 and 5 of Schedule B pertaining to air and noise pollution control from mines.
25. The industry shall comply with all the Board directions issued from time to time.
26. The applicant shall submit Environment statement in Form V before 30th September of every year as per Rule No.14 of E (P) Rules, 1986 & amendments thereof.
27. The conditions are without prejudice to the rights and contentions of this Board in any Hon'ble court of law.

Sd/-
MEMBER SECRETARY

To
M/s. Andhra Cements Limited,
(Mines Division)
Gampalapadu(V),
Dachepalli (M),
Guntur District-522414

//T.C.F.B.O//


JOINT CHIEF ENVIRONMENTAL ENGINEER
(UNIT - IV)

Annexure – A (xviii)
(SPECIFIC CONDITION)

BY HAND

भारत सरकार/ GOVERNMENT OF INDIA
खान मंत्रालय/ MINISTRY OF MINES
भारतीय खान ब्यूरो/ INDIAN BUREAU OF MINES
खान नियंत्रक (दक्षिण अंचल) का कार्यालय

OFFICE OF THE CONTROLLER OF MINES (SOUTH ZONE)

Telegram: MINESBURO
FAX: (080) 23373287
Tel: (080) 23373287/ 23375366-67
E-mail: rcombng@kar.nic.in

29, Industrial Suburb, II Stage,
Tumkur Road, Goraguntapalaya,
Yeswanthpur,
Bangalore- 560 022

No. MS/AP/GNR/LST-189-SZ

Date: 23.09.2008

To ✓ M/s. Andhra Cements Limited,
Durga Cement Works, Gamalapadu Village,
Dachepalli Mandal, Guntur district,
Andhra Pradesh- 522 414.



Sub: Approval of Scheme of Mining (including Progressive Mine Closure Plan) in respect of your DCW Limestone Mine over an extent of 170.22 ha situated at Gamalapadu village, Dachepalli Mandal, Guntur district of A.P State, submitted under Rule 12 of MCDR, 1988.

Ref: Your letter No. ACL/DCW/GM/IBM/4/MS/2008-09/132 dated 22.09.2008 submitting final copies of the Scheme of Mining.

Sirs,

In exercise of the power conferred by sub rule (4) of Rule 12 of Mineral Conservation and Development Rules, 1988, I hereby approve the aforesaid Scheme of Mining (including Progressive Mine Closure Plan). This approval is subject to the following conditions:

1. This Scheme of Mining (including Progressive Mine Closure Plan) is approved without prejudice to any other law applicable to the area from time to time whether made by the Central Government, State Government or any other authority.
2. The Scheme of Mining (including Progressive Mine Closure Plan) is approved without prejudice to any order or direction from any court of competent jurisdiction.
3. It is also clarified that the approval of your aforesaid Scheme of Mining (including Progressive Mine Closure Plan) does not in any way imply the approval of the Government in terms of any other provision of the Mines and Minerals (Development & Regulation) Act, 1957, or the rules framed there under and any other law.
4. It is further clarified that the approval of the Scheme of Mining (including Progressive Mine Closure Plan) is subject to the provision of Forest (Conservation) Act, 1980, Forest Conservation Rules, 2003 and other relevant statutes, orders and guidelines as may be applicable to the lease area from time to time.
5. Provisions of the Mines Act, 1952 and Rule & Regulations made there under including submission of notice of opening, appointment of manager and other statutory officials as required by the Mines Act, 1952 shall be complied with.
6. The execution of the Scheme of Mining (including Progressive Mine Closure Plan) shall be subjected to vacation of prohibitory orders/ notices, if any.

Contd....2

- 2 -
No. MS/AP/GNR/LST-189-SZ

7. If anything is found to be concealed as required by the Mines Act in the contents of the Scheme of Mining and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.

8. A copy of EIA/ EMP report, approved by MOEF, New Delhi, should be submitted to this office as well as to the Regional Controller of Mines, Indian Bureau of Mines, Hyderabad, within one month of approval along with a copy of their approval letter.

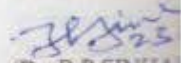
9. Environment monitoring Cell of the Company shall continue monitoring ambient air quality, dust fall rate, water quality, soil sample analysis and noise level measurements on various stations established for the purpose both in the core zone and buffer zone as per Department of Environment guidelines and keeping in view CCOM's Circular No. 3/ 92 season-wise every year by engaging the services, preferably of an Environmental laboratory approved by MOEF/ CPCB. The data so generated shall be maintained in a bound paged register kept for the purpose and the same shall be made available to the inspecting officer on demand.

10. The validity period of the financial assurance should be renewed before the expiry of the same and should be submitted to the Regional Controller of Mines, Indian Bureau of Mines, Kendriya Sadan, Sultan Bazar, Koti, Hyderabad- 500 095, under intimation to this office.

11. A yearly report should be submitted before 1st July of every year setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved Mine Closure Plan.

Encls: One of approved SOM
(including Progressive Mine Closure Plan).

Yours faithfully,

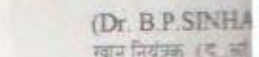

(Dr. B.P. SINHA)
खान निदेशक (ए. अ.)

Controller of Mines (SZ)

Copy for kind information to:

1. Shri Y. Madhusudan RQP, M/s. Geo Resources Development Company, No 25, Navodaya Colony, Road No.2, Banjara Hills, Hyderabad-500 034
2. The Chief Controller of Mines, Indian Bureau of Mines, Nagpur- 440 001.
3. The Director, Department of Mines & Geology, Government of Andhra Pradesh, B.K.R.K. Bhavan, 5th Floor, Tank Bund Road, Hyderabad- 500 029 along with a copy of approved Scheme of Mining (including Progressive Mine Closure Plan).
4. The Director of Mines Safety, Directorate General of Mines Safety, APHB Complex, Gruha Kalpa, Block II, M. J. Road, Nampally, Hyderabad- 500 001, along with a copy of approved Scheme of Mining (including Progressive Mine Closure Plan).
5. The Regional Controller of Mines, Indian Bureau of Mines, Kendriya Sadan, Sultan Bazar, Koti, Hyderabad- 500 095, along with a copy of approved Scheme of Mining (including Progressive Mine Closure Plan).

Encl: As above.


(Dr. B.P. SINHA)
खान निदेशक (ए. अ.)
Controller of Mines (SZ)

2 Numbers On line ambient air quality monitoring system installed

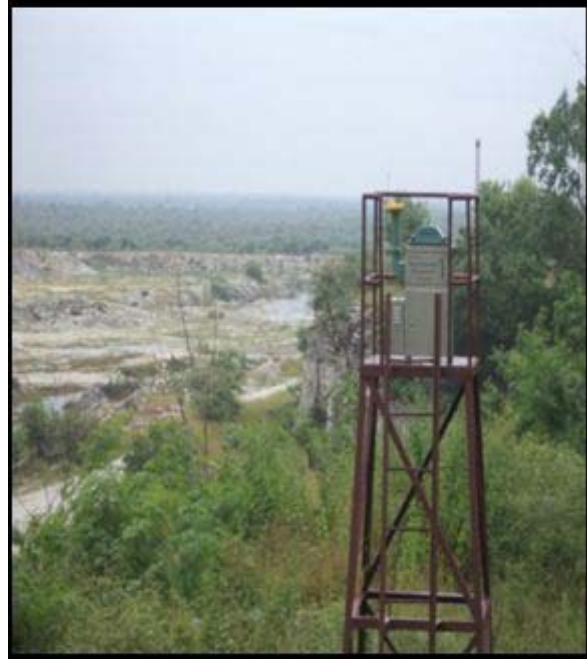


CAAQM Stations- 1(Towards Shrinagar Village)

4 Numbers Ambient Air Monitoring Station



Near Nagueru River (Near Mines)



Near Mines Pit-1

Rain Water Harvesting Measures

Storm Drains leading to Mines pit



Rain water collected in Mines pit

Eco Development measures

**Andhra Cements Limited
Durga Cement Works
Durgapuram, Srinagar(Po),Dachepalli-522414,
Guntur District,Andhra Pradesh.**

ECO DEVELOPMENT MEASURES TO BE TAKEN BY DCW

Jaypee group believes that harmony between the man and his environment is the prime essence of healthy life and living. The sustenance of our ecological balance is therefore of paramount importance. The Group recognizes its joint responsibility with the Government and the Citizens to protect and preserve the environment.

Practicing the principle of “Inclusive Growth”, following eco-development measures are being implemented or at various stages of implementation

1. SOIL CONSERVATION

Entire cement plant has been constructed on infertile land purchased from “patta lands” of the nearby residents, which is outside the reserved forest. For construction of plant and facilities in no case top fertile soil has been scarified. Rocky terrain had been leveled off for foundations for P& M, Offices & Buildings without any extraneous matter, with the help of excavator /grader only.

2. GREEN BELT DEVELOPMENT.

Plantation is being developed in following manner:

S.No.	Form of Plantation	Description
i	Shelter Belt plantation	All around the project boundary 3 rows of saplings is being planted to form a greenbelt, Preference is being given to fast growing species including locally dominant species such as Neem, Pongamia, Alstronia etc
ii	Avenue plantation	Parks of township, adm. Building, temple area, either side of internal roads
iii	Block plantation	Vacant land around facilities being developed

Greenbelt development in the form of above described manner will serve following purposes:

- i. Increase in fresh Oxygen supply and
- ii. Acting as carbon sink thereby combating global warming through reduction in CO₂ emissions.
- iii. Improving microclimate, contributing to cooling effect and improve green Cover in the surrounding areas improving QOL (Quality of Life) with increase in lung space and promoting healthy lifestyle.

Additionally these tree groves will reduce soil erosion, help in enhancing groundwater recharge and create a sound barrier between plant and surrounding areas.

3. WATER CONSERVATION

To put least thrust on natural sources of Water, Company is adopting best possible approaches to conserve water, which can be witnessed as:

- i. Construction of STP to Maintain **Zero Waste Water Discharge**- all type of treated water is being utilized for specific purposes such as plantation, dust suppression etc.
- ii. Installation of air cooled condenser for CPP, in place of conventional large size Cooling towers.
- iii. Rain water harvesting is proposed to be implemented for the Township as well as Plant area.

4. SOLID WASTE MANAGEMENT

Following strategy is being implemented to handle solid waste of all kinds either it may be hazardous or non hazardous:

- Practicing principle of 2Rs i.e. Reduce & Reuse
- All the waste will be segregated on the basis on degradability/recyclability, than accordingly they will be disposed. Bio degradable waste from township & plant area will be composted and the manure will be used for horticulture purpose.
- All the hazarded waste will be disposed through the authorized recyclers.
- Maximum possible utilization of Fly ash

5. USE OF ALTERNAVITE FUEL

- Provision is being made for use of PET Coke in the Cement Production, which is otherwise waste end product for refineries

6. ENERGY CONSERVATION

- Use of CFL in all building and offices
- Installation energy star rated ACs for offices and load centers
- Use of VFD in place of conventional one
- 5-stage pre heater itself is energy saving effort
- Utilization of hot air gases released from kiln
- Installation of VRMs for raw mill & coal mill

7. SOCIO-ECONOMIC BENEFITS

A Development of any kind is said to be biased, if its benefits doesn't passes to rock bottom strata of the society. In this regard DCW has contributed in following manner:

- Indirect employment to entrepreneurs
- Direct employment to local residents
- Growth of local market in terms of consumables(Domestic & Industrial)
- Fulfilling CSR & commitment made during public hearing.
- Preference to local people for employment.
- Rise in living standards

Various Measures of CSR Activities being done in the surrounding villages

1. Education.
2. Filter Water supply. Maintenance and Support.
3. Dandivagu Lift Irrigation Scheme. Maintenance and Support.
4. Health & Hygiene.
5. Medical Camps.
6. Street lights illumination.
7. Cutting and cleaning bushes.
8. Financial Assistance for maintenance of Religious places.
9. Contribution for Annadanam in a Temple procession.
10. White-washing & colouring of Religious places.
11. Supporting for Athletic Champion Sports meet in the District.
12. Providing Tricycles for the physically challenged persons.
13. Providing Aggregate chips for construction of church etc.
14. Laying water pipe line in Srinagar village.
15. Providing Aggregate chips for filling the pit holes of the Road connecting Ramapuram village to State High Way.
16. Repairs and Reconstruction of School compound wall & Grampanchayat office compound wall.
17. Providing Medical check ups to all students with free medical help and energy food to Junior Class students (weekly twice) at Durga Public School.
18. Construction of Kalyana Mandapam.
19. Road repair work / Cementing of road.
20. Provided R.O.Plant at Srinagar Village under NTR SUJALA PATHAKAM and inaugurated by Shri Yarapathineni Srinivasa Rao, MLA on 02-10-2014.
21. Providing free R.O. Drinking water.
22. Providing Free Medical facilities, Ambulance and Fire services in Emergencies to the neighbouring villages.

SUMMARISED CSR ACTIVITIES & EXPENSES PLANNED FOR 2014-15 & 2015-16

S.No.	Item	Amount (Rs.in Lakhs)
1	Provided R.O.Plant at Srinagar village under NTR SUJALA PATHAKAM, inaugurated by Shri Yarapathineni Srinivasa Rao, MLA on 02-10-2014	2.70
2	Extension of water pipe line in one of wards in Srinagar Village	4.00
3	a) Drinking water supply scheme b) Pump house repairs are to be carried out as the pipeline system was introduced in 1995 and rusted	2.40 4.00
4	Dandivagu Lift Irrigation Scheme	1.60
5	Improving Health & Hygiene in surrounding villages	10.00
6	Aggregate chips for filling pit holes of the Road connecting Ramapuram village to State High way – 2.5 Kms	11.00
7	a) Repairs to the construction of School compound wall in Gamalapadu village – 350 Mtrs with main gate. b) Grampanchayat Office compound wall repairing (collapsed wall) and gate	6.00 2.50
8	Financial assistance for maintenance religious places in surrounding villages	1.00
9	Construction of Kalyana Mandapam in Ramapuram Village	10.00
10	Laboratory and Library renovation in Durga Public School	5.00
11	White-washing & colouring of Siva Temple in Ramapuram in connection with Mahasivaratri	0.10
12	Cutting & Cleaning bushes in Srinagar village	0.60
13	Road repair work / Cementing of road work in Ramapuram & Gamalapadu villages together = 500 Metres	15.00
14	Compassionate grounds subsidized / free education to poor / suffering / deserved people	3.00
15	Providing medical check ups to all students at DPS with free medical help and energy food to lower class (weekly twice)	1.50
16	Providing free R.O. water (including supply of regular water in times of power/water supply failure), emergency medical services and ambulance and fire services	4.00
17	Providing Free Medical facilities, Ambulance and Fire services in Emergencies to the neighbouring villages.	2.50
	TOTAL EXPENDITURE	Rs.86.90 Lac

DCW CSR ACTIVITIES



RO Water Plant Provided in Srinagar village



Street light & Water supply pipe line provided in Srinagar Village

DCW CSR Activities
Durga Public School of DCW



DURGA CEMENTS WORKS

A Unit of Andhra Cements Limited

Dugapuram,P.O- Srinagar, Dachepalli (M), dist- Guntur,(A.P)

NOISE LEVEL REPORT

(April-2014 to September 2014)

1. Colony area

	Day Time dBA	Night Time dBA
MAX	45.6	43.6
MIN	41.5	40.5
AVG	43.48	42.28
STD DEV.	1.19	0.94
COFF. OF VARIATION	0.03	0.02
98 PERCENTILE	45.6	43.6

2.Near Time Office

	Day Time dBA	Night Time dBA
MAX	55.30	53.70
MIN	45.60	44.80
AVG	51.55	49.87
STD DEV.	2.46	2.26
COFF. OF VARIATION	0.05	0.05
98 PERCENTILE	55.02	53.22

3.Near Mine Office

	Day Time dBA	Night Time dBA
MAX	55.80	53.80
MIN	44.50	42.10
AVG	52.43	50.53
STD DEV.	2.32	3.15
COFF. OF VARIATION	0.04	0.06
98 PERCENTILE	55.40	53.72

COMPLIANCE TO CREP

S. NO.	CREP CONDITION	COMPLIANCE
1	Cement Plants, which are not complying* with notified standards, shall do the following to meet the standards: <ul style="list-style-type: none"> • Augmentation of existing Air Pollution Control Devices — by July 2003 • Replacement of existing Air Pollution Control Devices — by July 2004 	Complied
2	Cement Plants located in critically polluted or urban areas (including 5 km distance outside urban boundary) will meet 100 mg/Nm ³ limit of particulate matter by December 2004 and continue working to reduce the emission of particulate matter to 50 mg/Nm ³ .	Complied
3	The new cement kilns to be accorded NOC/Environmental Clearance w. e. f. 01.04.2003 will meet the limit of 50 mg/Nm ³ for particulate matter emissions.	The pollution control equipments are designed for emission of less than 50 mg/Nm ³ .
4	CPCB will evolve load based standards by December 2003.	_____
5	CPCB and NCBM will evolve SO ₂ and NO _x emission standards by June 2004.	_____
6	The Cement industries will control fugitive emissions from all the raw material and products storage and transfer points by December 2003. However, the feasibility for the control of fugitive emissions from limestone and coal storage areas will be decided by the National Task Force (NTF). The NTF shall submit its recommendations within three months.	Cement Plant is implementing the following measures to control fugitive dust: <ol style="list-style-type: none"> 1. Installation of water sprinkling system in Coal & Lime stone stock pile. 2. Enclosure is provided to coal crusher 3. Enclosure is provided to all Conveyor belts. 4. Laying of Concrete roads for vehicle movement. 5. Installation of Dust collectors at all transfer points is completed. 6. Fly ash transportation by closed tankers 7. Fly ash transfer by pneumatic

		transportation to Fly ash silo 8. Concrete silos for storage of Clinker and Fly ash
7	CPCB, NCBM, BIS and Oil refineries will jointly prepare the policy on use of petroleum coke as fuel in cement kiln by July 2003.	Not applicable
8	After performance evaluation of various types of continuous monitoring equipment and feedback from the industries and equipment manufacturers, NTF will decide feasible unit operations/sections for installation of continuous monitoring equipment. The industry will install the continuous monitoring systems (CMS) by December 2003.	Durga Cement works installed the Continuous Stack Emissions Monitoring System at following locations 1) Kiln / Raw mill 2) Coal mill stack 3) Clinker cooler stack 4) Cement mill stack Stacks emission data online transmitted to APPCB server.
9	Trippings in kiln ESP to be minimized by July 2003 as per the recommendation of NTF.	Kiln/Raw Mill is provided with Reverse Air Bag House (RABH).
10	Industries will submit the target date to enhance the utilization of waste material by April 2003.	Depending upon the available Quantity of waste, we shall explore its utilization after stabilization of plant.
11	NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003.	--
12	Cement industries will carry out feasibility study and submit target dates to CPCB for co-generation of power by July 2003.	Cement Plant is designed with 4-stage preheater with 5 stage Separate Line Calciner String.

Annexure-B (vi)
(General Condition)

SUBJECT: MEDICAL HELTH CHECKUP AT DCW DSPENCERY



MEDICAL HELTH CHECKUP REPORT

VIJAYA X-RAY & DIAGNOSTIC CENTER

Main Road, Narayanapuram, DACHEPALLI, Guntur Dist.
Cell : 99488 18178, 94403 82993, 9949 83 0809

Regd. No.
624/2325/G1/DRA/2807

REPORT

Patient Name: <i>P M Reddy</i>	Age: <i>40</i>	Sex: <i>M</i>
Ref. By: <i>S. Mohanthy</i>	Date: <i>18.05.2014</i>	

URINE FOR PHYSICAL EXAMINATION

Quantity	: <i>5ML</i>
Colour	: <i>Pale Yellow Colour</i>
Appearance	: <i>Clear</i>
Nature	: <i>Acidic</i>
Phosphates	: <i>Nil</i>
Protein	: <i>Nil</i>
Glucose/SS	: <i>Nil</i>
ES & WP	: <i>Negative</i>

MICROSCOPIC EXAMINATION/HPE

EP cells	: <i>Nil</i>
Pus cells	: <i>1-2/HFP</i>
R.B.C	: <i>Nil</i>
Casts	: <i>Nil</i>
Crystals	: <i>Nil</i>

Suggested clinical correlations, if necessary, to be discussed

...END OF THE REPORT...


Signature

VIJAYA X-RAY & DIAGNOSTIC CENTER

Main Road, Narayanapuram, DACHEPALLI, Guntur Dist.
Cell : 99488 18178, 94403 82993, 9949 83 0809

Regd. No.
6242225/GIDRA/2007

REPORT

NAME — P.M. Reddy Date 18.5.2014 Age 40
Ref.By.DR — S. Mohanty sex M

STOOL TEST

MACROSCOPIC

COLOUR : Brownish Yellow

Appearance : Soft

REACTION : Acidic

MICRO SCOPIC

E.COLI : Nil

Pus cells : 1-3 cells

R.B.C : Nil

OVA : UN Fertilized Eggs of AL Present (Round Warm)

MUCUS : Nil

End of The Report


signature

VIJAYA X-RAY & DIAGNOSTIC CENTER

Main Road, Narayanapuram, DACHEPALLI, Guntur Dist.
Cell : 99488 18178, 94403 82993, 9949 83 0809

Regd No.
024/2325/G1/DRA/2007

REPORT

Patient Name: V. Santosh Rao (Oc.)	Age: 47	Sex: M
Ref. By Dr: S. Mohanty	Date: 23-11-2014	

HAEMOGRAM

TOTAL WBC COUNT	: 5,900 cells/Cumm	(Normal 4,000 - 11,000 cells/Cumm)
TOTAL RBC COUNT	: 4.2 Million/Cumm	(Normal Male 4.5 - 6.3 Mil/Cumm Female 3.7 - 5.6 Mil/Cumm)
HEMOGLOBIN	: 11.8 g/dl	(Normal Male 14-18g/dl Female 12.5-16.5g/dl)
HEMATOCRIT	: 42 Vol%	(Normal Male 42-50% & Female 38-45%)
MCV	: 79 fl	(Normal 80-100)
MCH	: 30 Pg	(Normal 27-34)
MCHC	: 32g/dl	(Normal 32-36)
PLATELET COUNT	: 2,94,000 Cells/Cumm	(Normal 1.5laks- 4.0laks/cumm)

DIFFERENTIAL COUNT:

Neutrophils	: 57 % (45 - 75%)
Lymphocytes	: 37 % (20 - 45%)
Eosinophils	: 06 % (1 - 6%)

Suggested clinical correlation, if necessary kindly discuss.

... END OF THE REPORT ...

Signature

VIJAYA X-RAY & DIAGNOSTIC CENTER

Main Road, Narayanapuram, DACHEPALLI, Guntur Dist.
Cell : 99488 18178, 94403 82993, 9949 83 0809

Regd No.
624/2325/G1/DRA/2007

REPORT

Patient Name: V. Suresh Rao	Age: 47	Sex: M
Ref. By Dr: S. Mohanty	Date: 23.04.2014	

URINE FOR PHYSICAL EXAMINATION

Quantity : 5ML
Colour : Pale Yellow Colour
Appearance : Clear
Nature : Acidic
Phosphates : Nil
Protein : Nil
Glucose SS : Nil
BS' & 'BP' : Negative

MICROSCOPIC EXAMINATION (HPP)

EP cells : 2-3/HPP
Pus cells : 1-2/HPP
R.B.C : Nil
Casts : Nil
Crystals : Nil

Suggested clinical correlation if necessary, kindly discuss.

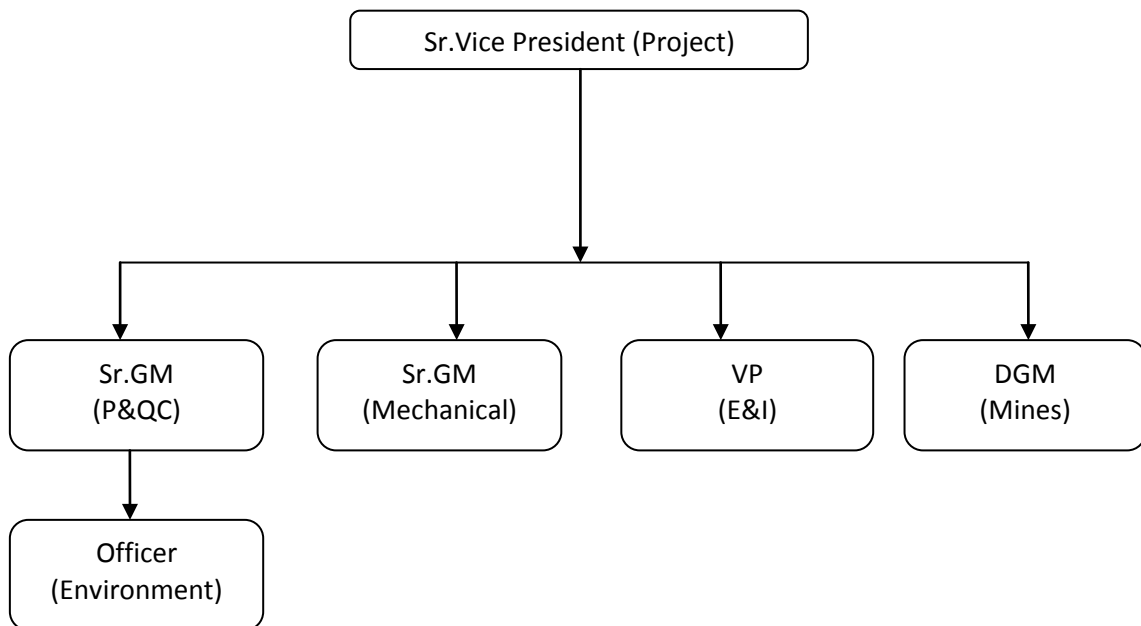
...END OF THE REPORT...


Signature

DURGA CEMENT WORKS

(A UNIT OF ANDHRA CEMENTS LIMITED)
GAMALAPADU (V), DECHEPALLI (M)
Dist. Guntur, AP

ORGANIZATION STRUCTURE OF ENVIRONMENT MAMNAGMENT CELL



Annexure-B (viii)
(General Condition)

DURGA CEMENT WORKS				
A Unit of Andhra Cements Limited Gamalapadu Village, Dachehalli Mandal Dist. Guntur (A.P)				
INVESTMENT ON POLLUTION CONTROL AT DCW PLANT				
(A) CAPITAL COST INVESTMENT ON POLLUTION CONTROL MEASURES				
S.N				Crores
(A) Capital cost investment on pollution control equipment up to March 2014:				50.90
(B) Capital cost investment on pollution control equipment from April 2014 to September 2014:				
S.N	Location	Work discription	Amount	Crores
(a) Air Pollution Control Measures				
1	Cement mill (VRPM)	Pipe line work on Bag filter	0.135717	
2	Cement mill (VRPM)	Bag Filter installation work	0.764905	0.900622
(b) Water Pollution Control Measures				
1	STP	Pipe line work	0.01178	0.01178
1	Water Treatment Plant	Civil Work	0.09744	0.09744
(c) Fugitive Emission Control Measures				
1	Plant road concreted	Civil Work	0.064593	0.064593
(d) Pollution Monitoring equipment Purchased				
	1 No. Respirable dust sampler APM -460 BL Purchased.	Air Pollution checking	0.07210	0.07210
Capital cost investment on pollution control equipment from April 2014 to September 2014:			1.1465	
Total Capital cost investment on pollution control up to September 2014				52.05
(B) RECRRING COST INVESTMENT ON POLLUTION CONTROL MEASURES				
S.N				Lakhs
(A) Recurring cost investment on pollution control equipment up to March 2014:				379.59
(B) Recurring cost investment on pollution control equipment from April 2014 to September 2014:				
S.N	Location	Work discription	Amount	Lakhs
1	Revers Air Bag House	Civil Work	0.35227	
2	Revers Air Bag House	Fire Hydrant	0.84719	
3	Revers Air Bag House	Pipe line work	2.35095	
4	All Bag filter mechanical maintenance cost	Greasing of all Bag filter Fan & Rotary valve chain	4.83500	
5	All Bag filter Power Consumption	488985 Units	29.33908	
6	Pollution monitoring Spares purchased	Glass Microfiber filter paper (Whatman), PM-10&PM2.5	0.35440	
7	Green belt Expencess	Plant area	1.80000	
8	Water spray tanker	Dust suppression on roads	1.78714	
9	Water meter (colony)	Repair	0.6000	
10	Plant road	House keeping	2.96149	
Recurring cost investment on pollution control equipment from April 2014 to September 2014:			45.228	45.228
Total Recurring cost investment on pollution control up to September 2014				424.82

DURGA CEMENT WORKS

A Unit of Andhra Cements Limited
Gamalapadu Village, Dachehalli Mandal
Dist. Guntur (A.P)

INVESTMENT ON POLLUTION CONTROL AT DCW MINES

(A) CAPITAL COST INVESTMENT ON POLLUTION CONTROL MEASURES

S.N	Lakhs
(A) Capital cost investment on pollution control up to March 2014:	
Capital cost investment on pollution control equipment from April 2014 to September 2014:	Nil
Total Capital cost investment on pollution control up to September 2014	35.56

(A) RECURRING COST INVESTMENT ON POLLUTION CONTROL MEASURES

S.N	Lakhs
(A) Recurring cost investment on pollution control equipment up to March 2014:	
	20.39

(B) Recurring cost investment on pollution control equipment from April 2014 to September 2014:

S.N	Location	Work discription	Amount	Lakhs
1	Water Spray tanker expences	Water spray on mines working area & mines roads	0.99269	
2	Green belt expences	Mines	1.4125	
3	House keeping	Mines	0.7971	
Recurring cost investment on pollution control equipment from April 2014 to September 2014:			3.202	3.202
Total Recurring cost investment on pollution control up to September 2014				23.59