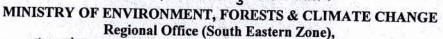


भारतसरकार

GOVERNMENT OF INDIA

पर्यावरण ,वनएवंजलवायुपरिवर्तनमंत्रालय



1st & 2nd floor, HEPC Building, No.34, Cathedral Garden Road, Nungambakkam, Chennai - 600034



F.No. EP/12.1/675/AP 10.06.2020

To. The Plant Head, M/s. Penna Cement Industries, Sy.No. 53, Belkatur Village, Tandur Mandal, Vikarabad Dist, Pin - 501 158, Telangana.

Integrated (Clinker 1.50 MTPA, Cement 2.0 MTPA) at village Belkatun, Mandal Subject:

Tandur, District Ranga Reddy, A.P. and Captive Limestone Mine (206.9 ha; 2.30 MTPA) at village Ogipur, Mandal Tandur District Ranga Reddy, A.P. by M/s.

Penna Cement Industries - Environmental Clearance - Reg.

Reference: 1) Environment Clearance No J-11011/1227/2007-IA II(I) Dated :29.09.2008.

2) Your letter dated. 29.07.2019.

Sir/Madam,

With reference to the above mentioned subject, please find enclosed herewith a certified copy of the compliance report. This has the approval of the competent authority vide diary No. 228, dt: 14.02.2020.

Yours faithfully,

(Dr.C.Kaliyaperumal)

Director (S)

Dr. C. KALIYAPERUMAL, M.E., PhD

Director (S) Government of India Ministry of Environment, Forests & Climate Change Regional Office (South Eastern Zone) HEPC Building, No.34. Cathedral Garden Road,

Nungambakkam, Chennai-600 034.

Encl: As above.

Certified copy of the Compliance Report

Subject: Integrated (Clinker 1.50 MTPA, Cement 2.0 MTPA) at village Belkatun, Mandal Tandur, District Ranga Reddy, A.P. and Captive Limestone Mine (206.9 ha; 2.30 MTPA) at village Ogipur, Mandal Tandur District Ranga Reddy, A.P. by M/s. Penna Cement Industries – Environmental Clearance – Reg.

Reference No: J-11011/1227/2007-IA II(I) Dated: 29th September, 2008.

Present Status of the project:

The Cement plant and mining works are under progress.

Date of Monitoring: 22.01.2020

A. SPECIFIC CONDITIONS.

S.No	Conditions	Compliance
	Continuous monitoring system to monitor gaseous emissions shall be provided and limit of SPM shall be controlled within 50 mg/nm3 by installing adequate air pollution control system like electro static precipitator and bag filters. The monitoring data collected for ambient air, fugitive and stack emissions shall be submitted to the ministries regional office at Bangalore, AP Pollution control board (APPCB) and CPCB regularly.	Complied. The PA has installed online continuous stack monitoring equipments in five stacks (Cement mill, Coal mill, Cooler ESP and kiln) to monitor the stack emission. The real time monitor data are transmitted to the SPCB and CPCB's servers. As per the data shown during the visit the levels are within the limit. Inter locking system is also provided. The monitor data are submitted once in a month to PCB and once in six months to MoEF, RO regularly.
	mill shall be provided to control emissions within 50mg/nm3. Dust collectors shall be provided to raw mills to coal mills, cement	Complied. They have only once (1) string of Clinkerisation equipment installed and in operation i.e. 1 Limestone Crusher, 1 Raw Mill, 1 Preheater, 1 Kiln, 1 Coal Mill & 1 Cooler along with their Auxiliary equipment. There is NO Captive Power Plant. The following Pollution control equipment are provided: RABH for Raw Mill and Kiln, bag filters for Coal Mill and Cement Mills, ESP for clinker cooler and 48 no's of fugitive dust emissions bag filters are provided at various locations to

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	feed system, crusher etc	no's continuous on-line stack monitoring systems with SOX & NOX for kiln stack for major process stacks for monitoring of the particulate matter and the systems are connected to TSPCB web site and CPCB servers. Kiln is already having RABH hence there is no requirement of conversion while expansion. They don't have CPCIL in our Plant.
iii	Ambient air monitoring shall be carried out in the nearby villages and efforts shall be made to control and minimize the particulate matters to bare minimum. 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 conveyors shall be covered with GI sheets. Covered sheds for storage of raw materials and fully covered conveyors for transportation of materials shall be provided besides coal, cement, fly ash and clinker shall be used for fly ash handling.	Complied. Online continuous ambient air monitoring is being done in the nearby villages on monthly basis at three locations. Two location's real time data are transmitted to PCB and third stations data has to be uploaded. In addition to the online continuous ambient air quality, manual monitoring also is being carried out through third party approved lab. As per the reports the parameters are within the limit. Bag filters are installed at transfer points. The company has installed dust collection and extraction system to control fugitive dust
iv	Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RPM particularly in mine area and other vulnerable areas. It shall be ensured that the ambient air quality parameters confirm to the norms prescribed by the central pollution control board in this regard.	Complied. Regular water sprinkling is carried out (mines as well as plant) to control the air pollution and the Ambient air quality parameters are within the limits.
V	Asphalting or concreting of roads and water spray all around the critical areas prone like coal stock piles and bag filters at transfer points shall be provided to control air pollution having high levels of SPM and RPM shall be ensured.	Complied. Cement concrete roads are laid and water sprinkling is carried out in the critical areas like coal yard, and bag filters at transfer points to control air pollution.

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vi	Secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines/Code of Practice issued by the CPCB shall be followed. Secondary emissions from the drilling, blasting, excavation, loading and transportation operations shall be controlled by water sprinkling and other dust suppression methods.	Secondary fugitive emissions are controlled by providing water sprinkling as well as manual cleaning including by using road sweeping machines. Dust suppression is being done by water sprinkling during drilling, blasting etc., Blasted Limestone is being wetted with water to suppress the raising of dust during loading.
vii	All the necessary care shall be taken to avoid exposure to silica.	Complied. Personnel Protective Equipments (PPE) are provided to all the workers to avoid exposure to silica.
viii	Digital processing of the entire lease area using remote sensing technique shall 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.	Refer below. As informed digital processing was carried out by survey conducted by Telangana Remote Sensing Application Centre in May 2018. However no information was provided about the submission of reports.
ix	Efforts shall be made to reduce to impact of the transport of the raw materials and end products on the surrounding environment including agriculture land. All the raw materials including fly ash shall be transported in the closed containers only and shall not be overloaded. 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.	Complied. Separate railway lane is laid for transporting raw materials like coal and intermediate products like Clinker and final product Cement. Fly ash is transported in Closed tankers. The dumpers are used for transporting of mineral and overloading is not done. The vehicles are emission is being checked regularly and all the vehicles are having pollution under control certificates. The ore loaded vehicles are covered with Tarpaulin.
	Total ground water requirement from bore wells for cement plant and mining shall not exceed 500m3/day and 100m3/day respectively. On effluent treatment plant (ETP) and chlorination plant shall be installed for the treatment of liquid effluent. Mined out area shall be developed as artificial reservoir and water stored in the artificial reservoir made in the mine pit shall be used maximum to reduce water consumption. All the treated waste water from the work shop of mines	Complied. The total ground water is from bore well and for that they have obtained permission from ground water authority. As informed the water consumption is within 500m3/day and 100m3/day respectively. There is no trade effluent treatment from the cement plant. STP (250 KLD) is installed and treated sewage is used for greenbelt development. 1.0 KLD ETP is installed at work shop in Mine for treating oil and grease removal and treated water is used for green belt development.

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	used in the process and/or for dus suppression, green belt development and other plant related activities etc. No proces waste water shall be discharged outside the factory premises and 'zero' discharge shall be adopted.	d s e
xi	'Permission' for the drawl of 500m3/day ground water from SGWB/CGWA shall be obtained. The water stored in the artificia reservoir made in the mine pit shall be used maximum to reduce ground water consumption. No effluent shall be discharged from the mine to any surface water body. Detailed hydrological study shall be carried out and implementation of recommendations of the detailed hydrological study shall be ensured.	Permission from SGWB is obtained to draw 600M3/ day groundwater received vide. L. No. 300/GWD/ROH/HG/2008 DT. 03.07.2008. Reservoir made at mines pit as well as near to the plant for rain harvesting to reduce ground water consumption. The PA informed that Hydrological study was conducted and the recommendations are implemented.
xii	Domestic waste water shall be treated in sewage treatment plant (STP) and treated domestic effluent shall be used for green belt development within the plant premises. Domestic waste from colony and STP shall be segregated into bio-degradable and non-bio-degradable. Bio-degradable waste shall be composted and non-biodegradable waste shall be land filled at identified sites.	STP of 250KLD capacity was installed for
xiii	The project proponent shall ensure that no natural water course shall be obstructed due to any mining operations.	Refer below There is no natural water course in the existing mining area
xiv	The project proponent shall take appropriate mitigative measures to prevent pollution of nearby River and other surface water body, if any.	Refer below No river and surface water bodies are nearby.
xv	All the bag filter dust, raw meal 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. The sludge from STP shall be used as manure for green belt development. Waste/ spent oil shall be sold to authorize recyclers/re processors only.	Complied To control pollution the following equipments are provided like RABH for Raw Mill and Kiln, bag filters for Coal Mill and Cement Mills, ESP for clinker cooler and 48 no's of bag filters are provided at various locations to control fugitive dust emissions and same dust is recycled in the system. The sludge generated from STP is used as manure for green belt development. Waste/ spent oil is sold to authorized recyclers/re processors.
kvi	An effort shall be made to use of high	authorized recyclers/re-processors. Refer below. The PA is not using high calorific hazardous

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	and necessary provision shall be mad accordingly.	e waste liquid fuels in their kiln.
xvii	Efforts shall be made to use low grade lime more fly ash and solid waste in the cemen manufacturing.	Refer below. The PA is manufacturing PPC cement by using fly ash.
xviii	All the fly ash shall be utilized as per fly ash notification, 1999 subsequently amended in 2003. Efforts shall be made to use fly ash maximum in making pozzolona Portland Cement (PPC).	Complied. Fly ash is used for manufacturing PPC cement.
xix	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.	Mechanized open casting is adopted. There is no change in technology and scope of working
xx	All the top soil and solid waste shall be stocked separately at specified dumping site with proper safeguards and used for the plantation /green belt development. No top soil shall be used to reclaim the mined out area by back filling lime stone mine.	Top soil is stocked at specified dumping site at NW corner of mine and being used for green belt development activities.
xxi	The over burden(OB), inter burden and other waste generated from mines, if any, shall be stocked at the earmarked dump sides only and shall not be kept active for long period. Back filled 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 bases.	There is no overburden and waste generated dumps in the Mines.
xii	The area for external over burden dump shall 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°.	Refer below. There is no overburden dumps in the Mines and hence no terrace is formed.
	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.	Complied. Garland drains are constructed and water collected is used for watering the mines haul roads and green belt development purposes.
civ	Suitable rain water harvesting and	Refer below.

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	conservation measures to augment ground water 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.	harvesting arrangement is made. In the mine, mine pit is used as rainwater collection pit.
xxv	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. premonsoon (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.	As informed Ground water level monitoring was carried out 4 times in a year. No information was provided about the consultation with Central ground water
xxvi	Bottom tube initiation wet drilling blasting method shall be used and provision for the controlled air emissions during blasting using dust collectors etc. shall be made.	Complied. Wet drilling is adopted to control the dust emission. Controlled blasting is adopted by using nonel electric detonators to control ground vibrations. Ground vibration is monitored during every blasting by Minimate ground vibration monitoring instrument.
xxvii	Blasting operation shall be carried out during the day time 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.	Complied. Blasting is done only during day time and one bench at a time, under controlled conditions using nonel. All the required statuary permissions were obtained from the Chief Controller of Explosives.
xxviii	Bench height, width and slope for individual bench shall be properly assessed and implemented. Adequate measures shall be adopted to stabilize the slope before abandonments. The fencing at around the reservoirs shall be provided to prevent	Complied. Bench height and slope etc. are maintained as per the mining plan. Bund is made around the reservoir.

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	accidents.	
xxix	As proposed, green belt shall be developed in at least 6.5 acres (33%) out of 16 acres area in the cement plant area and all the mined out area expect used for reservoir by plating the native species around mining lease area, over burden dumps, around water body, roads etc. In consultation with the local DFO/Agriculture department. Plantation all ready done in mine area shall be properly maintained and suitable replaced time to time. At least, 1500 trees per year shall be plated with a tree density of 2000 trees per ha. An action plan shall be submitted in this regard.	Green belt is developed in the Cement Plan area (14000) and mines (6000) by planting 20000 no. of plants in consultation with DFO
xxx	The void left unfilled shall be converted into water reservoir at the end of the life of the mine. 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.	Agreed to comply.
xxxi	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 month from the date of issue of this letter.	Refer below. The PA informed that there is no endangered fauna and flora in the project area. However they have not provided any details about this.
xxii	Name of the Control o	Agreed to comply.

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xxxiii	'Consent to operate' shall be obtained from APPCB before stating enhanced production from the mining.	
xxxiv	'Permission' and 'Recommendations' of the State Forest Department regarding impact of cement plant and mining activities on surrounding reserve forest viz. Gingurthy Reserve Forest shall be obtained and implemented. Further, conservation plan for the conservation of wild fauna in consultation with the State Forest Department shall be prepared and implemented.	Refer below. No details were provided about this.
xxxv	The company shall obtained necessary clearances /approval from the concerned departments i.e. Indian Bureau of Mines, State Government, MoEF etc for the linked mining component before undertaking construction activity at project site.	Complied Required clearances & approvals have been obtained from the concerned Govt. Departments like IBM,DMG,DGMS, MoEF& CC etc.
xxxvi	Rehabilitation and Resettlement plan for the project affected population including tribal's, if any, shall be implemented as for the policy of the State Govt. In consultation with the State Govt. Compensation paid in any case shall not be less than the norms prescribed under the National Resettlement and rehabilitation policy, 2007.	Refer below. No Rehabilitation and Resettlement plan in this project.
xxxvii	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.	Complied Appropriate noise control measures are followed at the mine &Factory to control noise pollution. Adequate measures like silencers are provided in all HEMM equipments operating in the mine to control the noise levels below 85 dBA. Provided ear plugs/muffs to the all workers engaged in drilling, blasting and HEMM operations.
xxviii	All the safety norms stipulated by the Director General, Mine & Safety (DGMS) shall be implemented.	Complied. Safety norms as per DGMS are being implemented.
xxix	A separate budget shall be kept for the occupational health surveillance within and outside the campus in the nearby villagers.	Complied. As informed separate budget is kept for occupational health surveillance within the campus and nearby villages.
1.	Suggestions made during the public hearing shall be implemented.	Complied. The PA informed that all the suggestions made

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		during public hearing were implemented.
В. (General conditions	
i	The project Authority shall adhere to the stipulations made by Andhra Pradesh pollution control board (APPCB) and state Government.	Complied. The PA informed that all TSPCB's stipulation are being implemented.
ii	No further expansion or modification of the plant shall be carried out without prior approval of this ministry.	Complied. No expansion was done without MoEl approval.
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.	Complied. The PA has installed online gaseous and SPM monitoring equipments to the stacks as per the standards of TSPCB/CPCB. The emission levels are within the limit. Interlocking facility is provided.
v	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 stock emissions shall be carried out regularly in consultation with APPCB and report submitted to the APPCB quarterly and to the ministries regional office at Bangalore half-yearly.	Complied. The PA has installed three ambient air quality monitoring stations, one in down wind direction and another one in up wind direction. The real time data are connected to State PCB and CPCB servers. The results of AAQMs, PM10,PM 2.5,SO2 and NOx are within the standards stipulated under EPA. The industry is monitoring noise levels and the results are within the standards of EPA monitored by third party. They are submitting the reports/data to concerned authorities.
	the rooftops and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh	Complied. The PA has constructed rain water harvesting pit back side of the factory compound wall to store the Rain water for recharge the ground water table.
	measures including community welfare measures in the project area.	Complied. The PA has implemented the following Eco developmental measures in and around the project area. Drip irrigation for development of greenbelt. Entire treated wastewater from STP is used for greenbelt development. Solar fence has been provided all along the compound walls within plant and colony. The company has replaced more than 95 % of the conventional lights with LED bulbs to save

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		Power.
		As informed various community development measures have been implemented in surrounding villages which include laying of roads, re-modification of school buildings, providing drinking water, providing free medical facilities and free education with free books for surrounding villagers children. Vocational training for women, providing furniture for schools, construction of public library and community hall etc,. From 1st April 2019 to Sep 2019 the company had spent Rs/-8480000 towards CSR Activities as informed.
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 generations. The ambient noises levels shall confirm to the standards prescribe under environmental (Protection) Act, 1986 Rules, 1989 wiz. 75 dBA (day time) and 70 dBA (night time).	Complied. Noise levels are reduced in the cement mill areas by providing the enclosures. The noise levels are monitored through third party approved lab at various locations and the levels
viii	All recommendations made in the corporate Responsibility for environment Protection (CREP) for cement plants shall be implemented.	Complied. The PA informed that all recommendations made in the corporate Responsibility for Environment Protection (CREP) for cement plants are being implemented.
ix	Proper house- keeping 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 maintain.	Complied. Good housekeeping is maintained. Annual medical examination of all the employees were taken up from occupational health point of view and the records are maintained.
X	A separate environmental management cell to carry out various management and monitoring functions shall be set up under control of senior Executive.	Refer below. There is no separate EMC. Environmental monitoring is carried out through approved lab.
xi	Adequate funds shall be earmarked towards the environmental pollution control measures for the cement plant and mine and 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.	Complied. The PA informed that an adequate amount was allocated for environmental management purpose.

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xii	The regional office of this ministry at Bangalor /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.	The PA submitting six monthly compliance reports to RO regularly. Statistical interpretation is not carried out.
xiii	The project authorities shall inform the Regiona 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.	As informed financial closure was achieved and the same was informed to MoEF&CC.
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 and may also be seen at website of the ministry of environment and forests at http://envfor.nic.in. This shall be advertised within 7 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.	The PA had given advertisements in two local newspapers (The New Indian Express and Eenadu on 08.10.2008) and the copies of the same were submitted to RO.
7.0	The ministry or any other competent authority may stipulate any further conditions on receiving reports from the project authorities. The above conditions shall be monitored by the Regional Office of this Ministry located at Bangalore.	Agreed to Comply
8.0	The ministry may revoke or suspend the clearance if implementation of the above conditions is not satisfactory.	Agreed to Comply.
9.0	Any other conditions or alteration in the above conditions shall have to be implemented by the project authorities in a time bound manner.	Agreed to Comply.
10.0	Any appeal against this environmental clearance shall lie with national environment appellate authority, if preferred within a period of thirty days prescribed under section 11 of the national environment appellate Act, 1997.	Refer below. The PA informed that there was no appeal against this EC.

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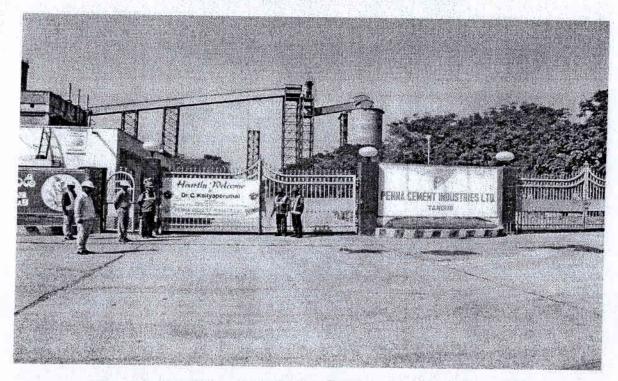
The above conditions shall be enforced, interalia under the provisions of the water (Prevention and Control of pollution) Act, 1974 the Air (Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986 and the public liability insurance Act, 1991 along with their amendments and rules.

This has the approval of competent authority vide diary no 228 and dated 14.02.2020

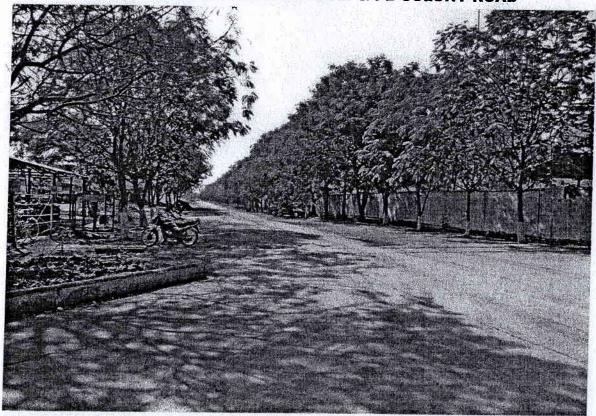
(Dr.C.Kaliyaperumal)
Director(S)

Dr. C. KALIYAPERUMAL, M.E., PhD
Director (S)
Government of India
Ministry of Environment, Forests & Climate Change
Regional Office (South Eastern Zone)
HEPC Building, No.34. Cathedral Garden Road,
Nungambakkam, Chennai-600 034.

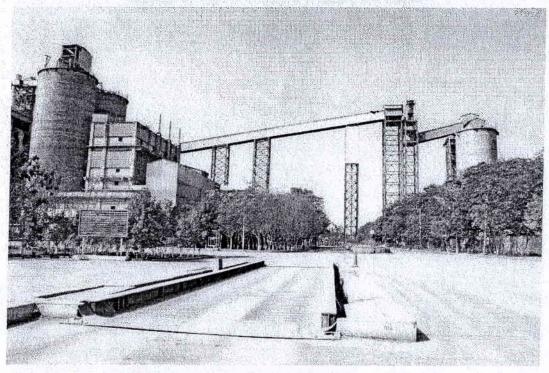
PLANT VIEW FROM FACTORY GATE



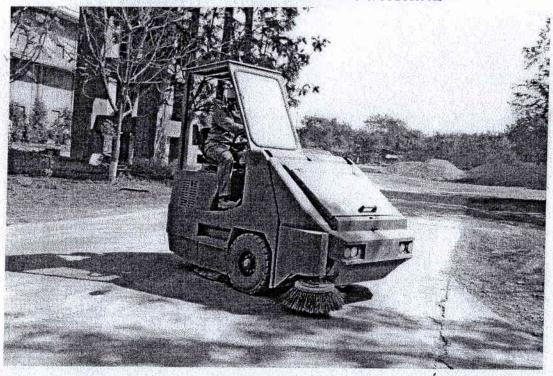
PLANT GATE TO CANTEEN ROAD & PB COLONY ROAD



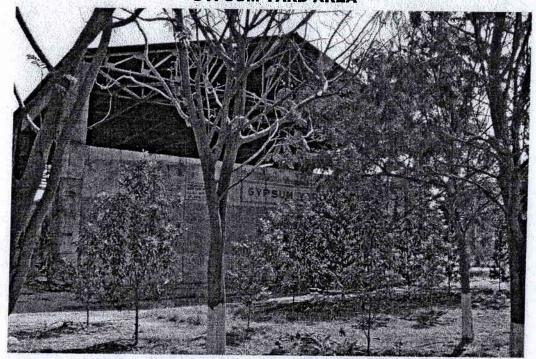
CEMENT SILO & WEIGH BRIDGE AREA



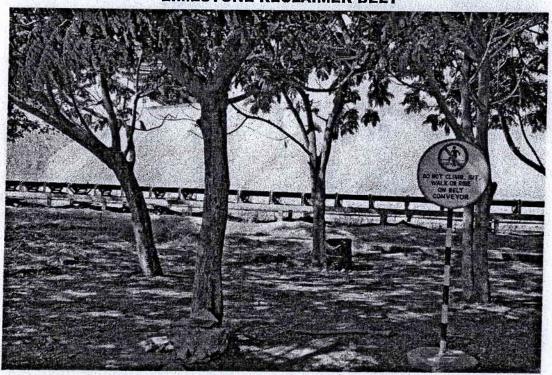
WORKING OF ROAD SWEEPING MACHINE



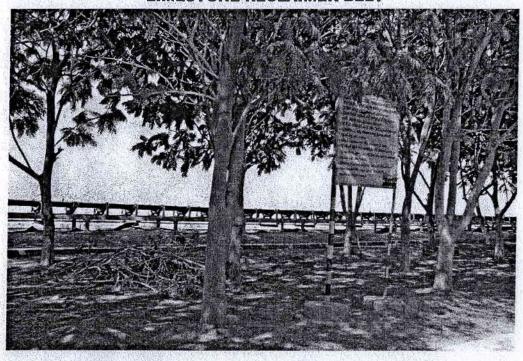
GYPSUM YARD AREA



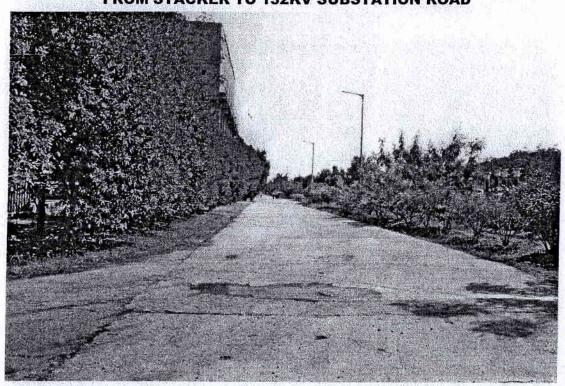
LIMESTONE RECLAIMER BELT



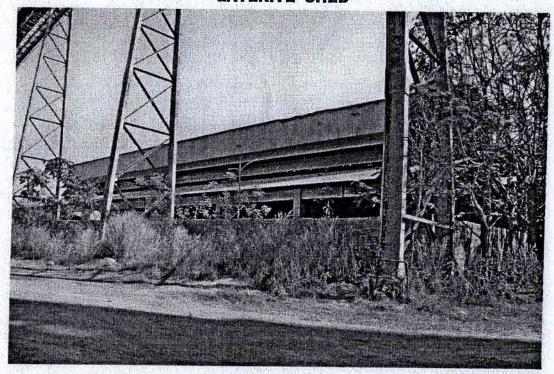
LIMESTONE RECLAIMER BELT



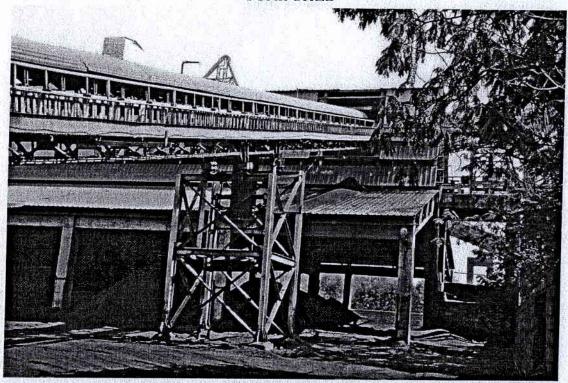
FROM STACKER TO 132KV SUBSTATION ROAD



LATERITE SHED



COAL SHED



GREENBELT AT STP ROAD



STP PLANT



RAIN WATER HARVESTING POND AT PLANT WEST CORNER



MINES WORKING PIT

