Chettinad cement

CCCPL/SGU/EC-Compliance/Oct'19 to Mar '19/2019-20

1st June, 2020

To

The Director(West-Central Zone)
Ministry of Environment, Forest and Climate Change
Regional Office (WCZ), Ground Floor, East Wing
New Secretariat Building Civil Lines, Nagpur

Sir,

Sub : Submission of Environmental Clearance Compliance & Environmental Monitoring Reports (Oct'19 to Mar '20) - Chettinad Cement Corporation Private Limited - Cement Grinding Unit, Ahuj (A) &Alegaon Villages, South Solapur Taluk, Solapur District, Maharashtra

Ref : Environmental Clearance issued for Cement Grinding Unit with Bulk Loading Terminal (2 x 2 million tons per annum) and Captive Power Plant (2 x 50 mw) by Environment Department, Government of Maharashtra vide letter SEAC-2011/CR-146/TC2 dated 13th Mar 2014

This is in reference with the above cited subject matter; we are hereby enclosing the Six Monthly Environmental Clearance Compliance & Environmental Monitoring Reports pertaining to our Cement Grinding Unit at Ahuj (A) & Alegaon Villages, South Solapur Taluk, Solapur District, Maharashtrafor the period from Oct '19 to March '20.

a. **Environmental Clearance Compliance Report (Oct'19 to Mar '20) - Appendix 1**
b. **Environmental Monitoring Report (Oct'19 to Mar '20)comprising of**
    i. Ambient Air Quality Monitoring - Consolidated Report - **Appendix 2**
    ii. Noise Level Monitoring - Consolidated Report - **Appendix 3**
    iii. Ground Water Quality Monitoring Report- **Appendix 4**
    iv. Stack Monitoring report. - **Appendix 5**
    v. Ground water quality monitoring - **Appendix 6**

Yours faithfully
For **Chettinad Cement Corporation Private Limited**

Jay Kumar
Asst.Vice President (Works)

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Copy to :

1. Member Secretary, CPCB, Delhi
   Central Pollution Control Board
   PariveshBhawan,CBD-cum office
   East Arjun Nagar, New Delhi-110032

2. Scientist 'E' & In-charge,
   Central Pollution Control Board, West Zone Office,
   "PariveshBhawan", Opp. VMC Ward Office No.10,
   Subhanpura, Vadodara-390 023, Gujarat

3. The Sub Regional Officer
   Maharashtra Pollution Control Board
   4/B, Bali Block, Civil Lines
   Opposite Government Milk Scheme
   Saat Rasta, Solapur – 413 003

4. Member Secretary
   Maharashtra Pollution Control Board,
   Raikar Chambers, "A" wing, 216, 2nd floor,
   DeonarGaon Road, Near Jain Mandir, Govandi (E),
   Mumbai-400 088

5. Regional Officer,
   Jog Center, 3rd floor,
   Mumbai Pune Road,
   Wakdewadi, Pune - 411003.

Appendix - 1

CHETTINAD CEMENT CORPORATION PVT LIMITED

Cement Grinding Unit

Ahuj (A) &Alegaon Villages, Solapur, Maharashtra

(Environmental Clearance granted vide letter number SEAC -2011/CR-146/TC2 dated 13th Mar 2014 for Cement Grinding Unit with Bulk Loading Terminal of 2 x 2 million tons per annum, Captive Power Plant of 2x 50 mw)

COMPLIANCE WITH EC CONDITIONS -STATUS REPORT(Oct '19 to Mar '20)

3. Terms and Conditions

S.No	Condition Stipulated	Compliance Status
i.	No additional land shall be used /acquired for any activity of the project without obtaining proper permission.	No additional land will be used or acquired for any activity without obtaining proper permission.
ii.	Conditions stipulated by Central Ground Water Authority vide letter dated 14.01.2014 regarding ground water withdrawal should be followed strictly.	The conditions stipulated by the Central Ground Water Authority vide their letter dated 14.01.2014 regarding ground water with drawlwill be complied with.
iii.	Status regarding captive brick manufacturing plant to utilize the bottom Ash should be furnished.	Captive Power Plant (CPP) has not yet commenced.
iv.	For controlling fugitive natural dust, regular sprinkling of water & wind shields at appropriate distances in vulnerable areas of the plant shall be ensured.	Water Sprinkling on Roads and Greenbelt along the peripheral of the plant boundaries act as wind shields to control fugitive emissions.
v.	Regular monitoring of the air quality, including SPM & SO_2 levels both in work zone and ambient air shall be carried out in and around the power plant and records shall be maintained. The location of monitoring stations and frequency of monitoring shall be decided in consultation with Maharashtra Pollution Control Board (MPCB) & submit report accordingly to MPCB.	Regular monitoring is being carried out in and around the Packing plant areafor Particulate Matter ($PM_{10}$and $PM_{2.5}$. The locations and frequency of monitoring have been decided in consultation with Maharashtra Pollution Control Board (MPCB).The Environmental Monitoring Reports are being submitted to MPCB. The establishment Captive Power Plant depends upon the availability of water. On commissioning of Captive Power Plant, the parameters like Particulate Matter (PM), SO_2 will also be monitored and records will also be maintained, as stipulated.

S.No	Condition Stipulated	Compliance Status
vi.	Necessary arrangement shall be made to adequate safety and ventilation arrangement in furnace area.	Captive Power Plant (CPP) has not yet commenced.
vii.	Proper Housekeeping programme shall be implemented.	Proper Housekeeping programme is being implemented.
viii.	In the event of the failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	In the event of the failure of any pollution control system provided for the production facility, that particular facility will be immediately put out of operation and will be restarted only after achieving the desired efficiency of the pollution control system.
ix.	A stack of adequate height based on DG set capacity shall be provided for control and dispersion of pollutant from DG set.(If applicable)	Stack height of 7.5m has been provided for the DG set to control and dispersion of pollutants.
x.	A detailed scheme for rainwater harvesting shall be prepared and implemented to recharge ground water.	A detailed scheme for rainwater harvesting as envisaged in the Hydrogeology Report, which is part of the EIA Report submitted, will be implemented to recharge ground water.
xi.	Arrangement shall be made that effluent and storm water do not get mixed	Power plant has not been commissioned hence there is no discharge of any industrial effluent from Cement Grinding Unit. The domestic effluent is being collected through separate pipelines for treatment in STP. Thus, there will not be any mix up of effluent with storm water.
xii.	Periodic monitoring of ground water shall be undertaken and results analyzed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution Control Board.	Periodic monitoring of ground water commenced.The results of analysis are being submitted to the Maharashtra Pollution Control Board.
xiii.	L_{eq} of Noise level shall be maintained as per standards. For people working in the high noise area, requisite personal protective equipment like earplugs etc., shall be provided.	Acoustic control measures like silencers and enclosures have been provided for the noise generating sources like DG Set,Compressor etc.,The Equipment and Machinery are maintained in good condition, the Leq of Noise level is within the standards prescribed.Earplugs/earmuffs are providedfor people working in the high noise areas.

S.No	Condition Stipulated	Compliance Status
xiv.	The overall noise levels in and around the plant are shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers. enclosures, etc. on all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under Environment (Protection) Act. 1 986 Rules. 1989.	Silencers and enclosures have been provided for the noise generating sources like DG Set, Compressor etc., and the Equipment and Machinery are being maintained in good condition, theoverall noise levels in and around the plant are kept well within the standards.
xv.	Greenbelt shall be developed & maintained around the plant periphery. Greenbelt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Department.	Greenbelt is being developed & maintained around the plant periphery. As of now,around 8500 saplings have been planted over an area of 6.0 ha so far. The total proposed area for greenbelt development is 16.5 ha. Greenbelt Development is being carried out considering CPCB guidelines and in consultation with the local DFO/ Agriculture Department.
xvi.	Adequate safety measures shall be provided to limit the risk zone within the plant boundary, in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning.	Adequate safety measures will be provided to limit the risk zone within the plant boundary in case of an accident. Currently, the Plantoperations includes only Cement Grinding.There will not be any generation/release of harmful/ toxic gases from the Cement Grinding Unit or from the proposed Captive Power Plant, which can affect the nearby areas. Hence, no leak detection devices will be required to be installed. As no hazardous chemicals or substances exceeding threshold limit are being stored or used, the requirement of providing any leakage detection device is envisaged in the Cement Grinding Unit/proposed Captive Power Plant.
xvii.	Occupational health surveillance of the workers shall be done on a regular basis and record maintained as per Factories Act.	Occupational health surveillance of the workers will be done on a regular basis and therecords will also be maintained as per Factories Act.
xviii.	The company shall make the arrangement for protection of possible fire hazards during	Smoke detectors and alarmshas been providedfor protectionof possible fire hazards during

S.No	Condition Stipulated	Compliance Status
	manufacturing process/material handling.	manufacturing process/ material handling.
xix.	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Waste (Management and Handling) Rules. 2003 (amended). Authorization from the MPCB shall be obtained for collections/treatment /storage/ disposal of hazardous wastes.	The Hazardous Waste (Management and Handling) Rules with regard to handling and disposal of hazardous wastes will be complied with.Authorization from the MPCB has been obtained for collection/storage/ disposal of hazardous wastes.
xx.	The company shall undertake following Waste Minimization Measures	Only Cement Grinding Unit has been commissioned now. The Captive Power Plant will be established after getting permission from the concerned authority for water supply from Bhima River.
	• Metering of quantities of active ingredients to minimize waste	Not applicable as no process waste is getting generated from Cement Grinding Unit.
	• Reuse of by- products from the process as raw materials or as raw material substitutes in other process.	Only after establishing and commissioning Captive Power Plant, the Fly Ash and Bottom Ash will be generated. The Fly Ash from Captive Power Plant will be used in Cement production and Bottom Ash will be used for various useful purposes within the plant premises.
	• Maximizing Recoveries	No waste is getting generated from Cement Production activities. On commissioning Captive Power Plant, the Ash generated will be entirely reused within the plant premises.
	• Use of automated material transfer system to minimize spillage.	For the Cement Grinding Unit, Closed Conveyors/Bucket Elevators have been provided for transfer of materials to prevent spillage. The Fly Ash is being be pneumatically unloaded from the Bulkers and conveying to Cement Mill is being done using Air Slides and Bucket Elevator to prevent spillage. While establishing Captive Power Plant, automated material transfer

S.No	Condition Stipulated	Compliance Status
		system to minimize spillage will be ensured.
xxi.	Regular mock drills for the on-site emergency management plan shall be carried out. Implementation of changes / improvements required, if any, in the on-site management plan shall be ensured.	Regular mock drills for the on-site emergency will be carried out. Implementation of changes /improvements required, if any, in the on-site emergencymanagement plan will be incorporated.
xxii.	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	Separate environmental management cell and environmental monitoring systems have been put in place. For analysis of samples, third party, approved laboratory facilities are being utilized.
xxiii.	Transportation of ash will be through closed containers and all measures should be taken to prevent spilling of the ash.	The Captive Power Plant is yet to be established, after commissioning of Captive Power Plantonly Fly Ash will be generated. All measures will betaken to prevent spilling of the ash.
xxiv.	Separate silos will be provided for collecting and storing bottom ash and fly ash	Fly Ashreceived from nearby Thermal Power Plants is storing in Fly Ash Silo. The same Fly Ash Silois being used for storing of Fly Ashand Bottom Ash, after commissioning of the Captive Power Plant.
xxv.	Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should reported to the MPCB & his department.	Separate fundhad been allocated for implementation of environmental protection measures as per EMP. These costs had also been included inthe project cost. The funds earmarked for the environment protection measures will not be diverted for other purposes.The total investment made towards Environmental Protection Measures is Rs 462.7lakhs.
xxvi.	The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the marathilanguage of the local concerned within seven days of issue of this letter , informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at website at http://ec.maharashtra.gov.in	Advertisement in two local newspapers viz., Lokmath (in Marathi) & Sanchar (in English) published on 21st Mar 2014 informing that the project has been accorded environmental clearance and the copy of clearance letter are available with the Maharashtra Pollution Control Board and can also be seen at website at http://ec.maharashtra.gov.in. Details of the same submitted to MPCB, Mumbai, Pune and Solapur on 25th Mar

S.No	Condition Stipulated	Compliance Status
		2014.
xxvii.	Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.	Half yearly compliance reports in respect of the stipulated prior Environment Clearance terms and conditions in hard & soft copies are being submitted tothe MPCB, Maharashtra as stipulated.
xxviii.	A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/ representations. if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	A copy of the clearance letter has been sent to the Municipal Office, Solapur and Yes Boss, Solapur, DrBabasahebAmbedkar Public Awareness Platform,Solapur and Public Welfare Labour Union, Shingadgaon. The Environmental Clearance letter has been put on the website of the Company.
xxix.	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM. SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	The status of compliance of the stipulated EC conditions is being uploaded periodically in our website. The same report is being sent to the Regional Office of MoEF & CC , Nagpur, the Zonal Office of CPCB,Vadodaraand the MPCB, Solapur,Pune &Mumbai. As Cement Grinding Unit alone has been commissioned , the Particulate Matter (PM) in stack emission and $PM_{2.5}$ and PM_{10} in the ambient air quality are being monitored using online monitors. On commissioning the proposed Captive Power Plant, the relevant parameters like SO_2 and NOx will also be monitored. The periodical monitoring of Ambient Air Quality, Stack Emissions, Ground Water Qualityand Noise levels (in the Plant area and outside) has been commenced and the monitored data is being uploaded in the company website and the same is being sent to the Regional Office of MoEF& CC , the Zonal Office of CPCB and the MPCB.

S.No	Condition Stipulated	Compliance Status
		The electronic display board has been provided near the main gate of the company.
xxx.	Six monthly monitoring reports should be submitted to the Regional office MoEF. Bhopal with a copy to this department and MPCB	The six monthly monitoring reports are being submitted to the Regional Office MoEF & CC, Nagpur with a copy to Environment Department, Maharashtra and MPCB, Pune and Solapur
xxxi.	A complete set of all the documents submitted to Department should be forwarded to the local authority and MPCB.	A set of all the documents submitted to District Collector, Soalpur and MPCB,Pune and Solapur.
xxxii.	The environmental clearance is being issued without prejudice to the court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision of the Hon'bleCourt will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him.	Noted.

Other Conditions

S.No	Condition Stipulated	Compliance Status
4	The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.	Noted.
5	The Environment department reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter for any other administrative reason.	Noted.
6	Validity of Environment Clearance: The environmental clearance accorded shall be valid for a period of 5 years to start of production	The time period stipulated by the latest The validity of Environmental Clearance will be considered based on EIA Notification.

S.No	Condition Stipulated	Compliance Status
	operations.	
7	In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.	Guidelines noted.
8	The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act,1981 ,the Environment (Protection) Act,1986 and rules there under, Hazardous Wastes (Management and Handling) Rules,1989 and its amendments, the Public Liability Insurance Act, 1991and its amendments.	Noted.
9	Any appeal against this environmental clearance shall lie with the National Green Tribunal Van VigyanBhawan, See-5,R.K. Puram, New Dehli - 110 022, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.

CHETTINAD CEMENT CORPN. PVT. LTD.

Appendix 2

Chettinad Cement Corporation Private Limited, Cement Grinding Unit													
Ahuj (A) & Aleagon Villages, Solapur District , Maharashtra													
Ambiant Air Quality Monitoring- Consolidated Report (Oct'19 - Mar'20)													
S.No	Location	PM_{10} (µg/m^3)			$PM_{2.5}$ (µg/m^3)			SO_2 (µg/m^3)			NOx (µg/m^3)		
		Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
1	Project Area (Near CCR Area)	63.0	50.4	57.5	52	23.5	39	12.5	7.9	11.0	25.6	17.8	19.8
2	Ahuj Village	58.7	41.0	46.0	35	21.7	29	12.2	6.5	10.2	25.4	17.8	19.8
3	Alegon Village	46.6	40.2	43.5	31	20.7	27	13.2	8.3	11.0	25.7	17.1	19.7
Limit		100 µg/m^3			60 µg/m^3			80 µg/m^3			80 µg/m^3		

for **Chettinad Cement Corporation Private Limited**

Jaykumar
Asst.Vice President (Works)

CHETTINAD CEMENT CORPN. PVT. LTD. ALEGAON SOLAPUR

Appendix 3

Chettinad Cement Corporation Private Limited, Cement Grinding Unit				
Ahuj (A) & Aleagon Villages, Solapur District , Maharashtra				
Noise Level Monitoring- Consolidated Report (Apr'19 - Sep'19)				
S.No	Location	UoM	Day	Night
			L_{eq}	L_{eq}
Within the Premises				
1	Near main WTP Area	dB(A)	57.7	52.6
2	Near Cement mill atrea	dB(A)	62.9	58.7
3	Near Packing area	dB(A)	63.4	59.2
Permissible Limit (L_{eq})		**dB(A)**	**75**	**70**

for **Chettinad Cement Corporation Private Limited**

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Appendix 4

Chettinad Cement Corporation Private Limited, Cement Grinding Unit

Ahuj (A) & Aleagon Villages, Solapur District , Maharashtra

Treated Sewage Quality Monitoring - Consolidated Report (Oct'19 to Mar '20)

A. Treated Industrial Effluent

S No	Paramenter	UoM	Norms	Max	Min	Avg
1	Suspended Solids	mg/litre	50	48.0	26	38
2	PH	-	5.5 to 9.0	8.0	7.1	7.6
3	BOD	mg/litre	30	26	18	23
4	COD	mg/litre	100	83	57	74

for **Chettinad Cement Corporation Private Limited**

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CHETTINAD CEMENT CORPN.PVT.LTD. ALEGAON SOLAPUR

Appendix 5

Chettinad Cement Corporation Private Limited, Cement Grinding Unit							
Ahuj (A) & Aleagon Villages, Solapur District , Maharashtra							
Stack Emission Monotoring- Consolidated Report (Oct '19 to MAR '20)							
S.No	**Stack Connected to**	**Parameter**	**UoM**	**Norms**	**Max**	**Min**	**Avg**
1	Cement MIll-1	**Particulate Matter**	**mg/Nm3**	**50**	28.20	21.50	24.60
2	Packer-01	**Particulate Matter**	**mg/Nm3**	**50**	24.30	17.36	21.34
3	Cement MIll-Top	**Particulate Matter**	**mg/Nm3**	**50**	24.15	16.90	19.84
4	D.G set 500 kva	**Particulate Matter**	**mg/Nm3**	**50**	48.67	18.50	29.39
5	Packer-02	**Particulate Matter**	**mg/Nm3**	**50**	28.20	18.30	23.16

for **Chettinad Cement Corporation Private Limited**

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Asst.Vice President (Works)

CHETTINAD CEMENT CORPN.PVT.LTD. ALEGAON SOLAPUR

Appendix 6

Chettinad Cement Corporation Private Limited, Cement Grinding Unit
Ahuj (A) & Aleagon Villages, Solapur District , Maharashtra
Ground Water Quality Monitoring Report(Oct'19 - Mar'20)

S. No	Parameter	UoM	GW 1	GW 2	GW 3	Permissible Limits
i	Colour	Hazen Units	<5.0	<5.0	<5.0	15
ii	Odour	Un objectionable	Unobjectionable	Unobjectionable	Unobjectionable	Agreeable
iii	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
iv	Turbidity,	NTU	1.17	0.40	0.78	5
v	pH	-	7.82	7.67	7.72	6.5 - 8.5
vi	Total Dissolved Solids	mg/l	556.33	498.33	532.00	2000
vii	Total Hardness (as $CaCO_3$)	mg/l	273.33	227.67	244.33	600
viii	Chloride (as Cl)	mg/l	91.67	78.30	80.83	1000
ix	Calcium (as Ca)	mg/l	81.05	80.40	82.80	200
x	Magnesium (as Mg)	mg/l	30.37	28.32	27.65	100
xi	Fluoride (as F)	mg/l	0.26	0.30	0.33	1.5
xii	Nitrates (as NO_3)	mg/l	27.65	23.29	20.82	45
xiii	Sulphates (as SO_4)	mg/l	47.72	42.15	46.53	400
xiv	Iron (as Fe)	mg/l	<0.05	<0.05	<0.05	1.0
xv	Alkalinity (as $CaCO_3$)	mg/l	188	197	180	600
xvi	Phospate	mg/l	<1.0	<1.0	<1.0	<1.0
xvii	Residual chlorine	mg/l	<0.1	<0.1	<0.1	0.2
xviii	Silica	mg/l	BDL	BDL	BDL	<1.0
xix	Total coliform	MPN/100 ml	0	0	0	Absent

GW1 : Borewell Project Site GW1 : Borewell 2
GW2 : Borewell 3

for **Chettinad Cement Corporation Private Limited**

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Asst.Vice President (Works)

CHETTINAD CEMENT CORPN. PVT. LTD. ALEGAON SOLAPUR