



ANDHRA PRADESH POLLUTION CONTROL BOARD
D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre,
Chalamalavari Street, Kasturibaipet, Vijayawada – 520010.

Website :www.appcb.ap.nic.in

AMENDMENT TO CONSENT FOR ESTABLISHMENT ORDER

Order No. 124 /APPCB/CFE/RO-KNL/HO/2011

Dt.21.03.2019

Sub: APPCB - CFE - **M/s. JSW Cement Limited, Sy.No.139A & 183 etc., Bilakalagudur (V), Gadivemula (M), Kurnool District - Amendment to the CFE order – Issued – Reg.**

- Ref:
- 1) CFE order dt. 03.06.2016.
 - 2) T.O. order No. APPCB/HWM/KNL/JSW/2017, dt. 17.01.2017.
 - 3) CFE order dt. 03.06.2017.
 - 4) Industry's CFE applications received through APOCMMS on 20.02.2019 & 28.02.2019.
 - 5) E.E., R.O: Kurnool reports dt. 11.03.2019.
 - 6) CFE Committee meeting held on 20.03.2019.
 - 7) Industry's mail dt. 21.03.2019.

In the reference 1st cited, the Board had issued Consent for Establishment (CFE) to produce the following products:

Sl.No	Products / Line of Activity	Capacity
1.	Clinker	2.50 Million TPA
2.	Cement (Blended) Granulated Ground Blast Furnace Slag (GBS)	4.8 Million TPA (OPC + PSC/GGBS)
3.	Captive Power Plant	36 MW
4.	Power generation (WHRB)	9 MW

In the reference 2nd cited, the Board had issued order for co-processing the following **hazardous wastes** in the cement kiln:

- i. Date expired, Discarded & Off – specification drugs / medicines (Pharma Industries);
- ii. Process / Distillation residues and wastes (Pharma Industries);
- iii. Spent Carbon (Pharma Industries);
- iv. Chemical ETP sludge (Agro Chemical Industries);
- v. Process waste & residues (Pesticides / Agro Chemical Industries);
- vi. Waste / residues (Sludge from process) and filters & filter material (Polymer Industries)
- vii. Dismantled Lube / Fuel oil Filter (M/s Diesel Loco shed)

The Board issued CFE order vide reference 3rd cited for usage of the following alternative fuels in the Cement kiln:

- i) Pet coke – 2,40,000 TPA as fuel mix or Stand alone fuel (100%),
- ii) Bio-Mass (Agro Waste) -18,000 TPA,
- iii) Carbon black from Tyre chips – 20,000 TPA &
- iv) Municipal solid waste – 20,000 TPA.

In the reference 4th cited, the industry submitted applications seeking CFE to manufacture the Composite Cement and Portland Pozzolona Cement and to use additional alternative fuels in the Cement kiln, without modifying the permitted Cement and Clinker manufacturing capacities.

The EE, RO: Kurnool vide reference 5th cited submitted reports in this regard. The item was placed before the CFE Committee in its meeting held on 20.03.2019 and the Committee recommended to issue amendment to CFE as requested by the industry.

The Board after careful scrutiny of the CFE applications submitted by the unit, reports of the Regional Officer and recommendations of the CFE Committee, hereby issues **AMENDMENT TO CONSENT FOR ESTABLISHMENT** under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under for the following:

- **The industry is permitted to produce the products as mentioned below with an additional project cost of Rs. 20.30 Crores.**

Sl.No	Products / Line of Activity	As per CFE order dt:03.06.2016	Total capacity after change in the products
1.	Clinker	2.50 Million TPA	2.50 Million TPA
2.	Cement	4.8 Million TPA (1.1 OPC + 3.7 PSC / GGBS)	4.8 Million TPA (OPC / PSC / GGBS / PPC / Composite Cement)
3.	Captive Power Plant	36 MW	36 MW
4.	Power generation (WHRB)	9 MW	9 MW

➤ The industry is permitted to use the following additional alternate fuels in the kiln:

Sl. No.	Description waste	Source	Max quantity
1.	Process residues (Liquid) & Solid waste	Pharmaceutical industries	Maximum 50% of the Coal Consumption i.e., about 1,05,600 TPA
2.	Spent carbon		
3.	Off-specification products		
4.	Distillation Residue		
5.	Evaporation salts		
6.	ETP sludge		
7.	Fuel gas cleaning residue		
8.	Spent solvents (Solid & liquids)		
9.	Process waste & residues		
10.	Sludge containing residues		
11.	Date-expired Off-specification products		
12.	Spent Organic Solvents (Solid & Liquid)	Automobile industry / Diesel loco	
13.	Contaminated cotton rags / cleaning materials		
14.	Spent carbon	Soft drink industry	
15.	Evaporation salts	Chemical industry	
16.	Contaminated plastic waste / cleaning materials	Packaging industries	
17.	Plastic & Resin waste	Fabrication industries	
18.	Paint process waste, residues & sludge	Paint manufacturing industries	
19.	Used / spent oil	Process industries, Automobile workshops	
20.	Waste / residues containing oil	Process industries, automobile workshops	
21.	Mix waste suitable for co-processing	Automobile, paint, Textile, pharma, soft drink industries etc.	
22.	Waste grease	Process industries, Automobile workshops	
23.	RDF / MSW	Municipal waste	
24.	Dolochar	Sponge iron industries	
25.	Carbon Black Powder	Waste from tyres processing units	
26.	Shredded waste tyres & rubber chips	Waste handling units	
27.	Plastic scrap	Waste handling units	
28.	Paint process waste, residues & sludge	Waste handling units	

29.	Biomass – (Rice husk, Groundnut husk, Waste wood, Mango kernels ,Coconut shells etc)	Rice mills / Farmers	
30.	Pre-processed Hazardous waste	M/s GEPIL, Hyderabad.	
31.	Pre-processed Hazardous waste	M/s UPS Enviro tech, Vijayawada	
32.	Municipal Solid Waste	M/s Ramky, Enviro, Hyderabad	
33.	Municipal Solid Waste	M/s Zigma Global Environ solutions Pvt. Ltd, Vijayawada.	

- There is no change in the capacities of kiln (6,500 TPD), production capacity of Cement and Electricity. The industry **shall not use** the proposed alternative fuels in the coal based Power Plant of capacity 36 MW.
- The alternative fuels shall be used after mixing with coal in the Kiln. The existing air pollution control equipments shall be used for control of dust emissions to meet the emission standards.
- The industry shall not store fuels in open area. They shall be transported in covered condition to control fugitive emissions.
- **All other conditions mentioned in the orders issued vide references 1st , 2nd & 3rd cited remain the same.**

Bandla Siva
Sankar
Prasad

Digitally signed by Bandla Siva Sankar Prasad
DN: c=IN, o=APPCB, ou=EFS and T Head Office, cn=Bandla Siva Sankar Prasad, postalCode=520010, 2.5.4.20=c0408011b7f769398976702e00cb9b479454f18c98b21c03bc47f7349d6555b35, st=Andhra Pradesh
Date: 2019.03.21 17:38:06 +05'30'

CHAIRMAN

To

**M/s. JSW Cement Ltd, (alternative fuels)
Bilakalaguduru (V), Gadivemula (M),
Kurnool District.
narsimha.reddy@jsw.in**

Copy to: 1. The JCEE, Z.O: Kurnool for information and necessary action.
2. The E.E., R.O: Kurnool for information and necessary action.



REGD.POST WITH ACK.DUE

CONSENT ORDER FOR ESTABLISHMENT

Order No. 253 /APPCB/CFE/RO-VJA/HO/2009

Dt. 03.06.2016

Sub: APPCB – CFE - **M/s. JSW Cement Ltd, Sy.No.139A & 183, etc., Bilakalagudur (V), Gadivemula (M), Kurnool District ,A.P** – Consent for Establishment of the Board for **expansion and Change of Product Mix** under Sec.25 of Water (P & C of P) Act, 1974 and Under Sec.21 of Air (P&C of P) Act, 1981 - Issued - Reg.

Ref: 1. EC (amend) order dt. 09.03.2016 issued by MoEF&CC, Gol, New Delhi.
2. Industry's CFE application received through A.P. Single Desk on 13.05.2016.
3. R.O's inspection report dt. 19.05.2016.
4. CFE Committee meeting held on 21.05.2016.
5. Industry's Ir. dt. 24.05.2016.
6. RO mail dt. 31.05.2016.

1. In the reference 3rd cited, an application was submitted to the Board seeking Consent for Establishment (CFE) for **Expansion and Change of Product Mix** without additional investment by de-bottle necking the process, process optimization / modernization.

Products	Existing capacity as per CFE order dt. 22.09.2011 & CFE (amend) order dt. 13.02.2015	Proposed capacity	Total capacity after expansion
Clinker Production (Million TPA)	2.0	0.50	2.50
Cement Production (Million TPA)	4.80 (1.1 OPC / PPC + 3.7 PSC)	CPM (No change in total production capacity)	4.80 (1.1 OPC + 3.7 PSC/GGBS)
Captive Power Plant	36 MW	----	36 MW
Power generation (WHRB)	9 MW	----	9 MW

2. As per the application, the above activity is to be located within the existing industry premises of area 650.50 Acres located at Sy.No.139A & 183, etc., Bilakalagudur (V), Gadivemula (M), Kurnool District ,A.P.
3. The above site was inspected by the Environmental Engineer & Asst. Environmental Engineer, Regional Office Kurnool, A.P Pollution Control Board on 16.05.2016 and found that the site is surrounded by the following:

North : Agriculture land
South : Agriculture lands
East : Agriculture lands
West : Mine lease area

4. The Board, after careful scrutiny of the application, verification report of Regional Officer and recommendations of the CFE Committee, hereby issues **CONSENT FOR ESTABLISHMENT for Expansion and Change of Product Mix** to your unit Under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air



(Prevention & Control of Pollution) Act, 1981 and the rules made there under. **This order is issued to manufacture the products as mentioned at para (1) only.**

5. This Consent Order now issued is subject to the conditions mentioned in Schedule 'A' and Schedule 'B'.
6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.
7. **This order is valid for period of 7 years from the date of issue.**

Encl: Schedule 'A'
Schedule 'B'

MEMBER SECRETARY

To
M/s. JSW Cement Ltd,
Sy.No.139A & 183, etc.,
Bilakalagudur (V), Gadivemula (M),
Kurnool District ,A.P
narsimha.reddy@jsw.in

Copy to: 1. The JCEE, Z.O., Kurnool for information and necessary action.
2. The E.E., R.O, Kurnool for information and necessary action.

SCHEDULE - A

1. Separate energy meters shall be provided for Sewage Treatment Plant (STP) and Air pollution Control equipments to record energy consumed.
2. The proponent shall obtain Consents for operation from APPCB, as required Under Sec.25/26 of the Water (P&C of P) Act, 1974 and under sec. 21/22 of the Air (P&C of P) Act, 1981, before commencement of the activity.
3. Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec.27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under Sec.21(4) of Air (Prevention and Control of Pollution) Act, 1981 to review any or all the conditions imposed herein and to make such alternation as deemed fit and stipulate any additional conditions by the Board.
4. Rain Water Harvesting (RWH) structure (s) shall be established on the plant site. The proponent shall ensure that effluent shall not enter the Rain Water harvesting structure.

SCHEDULE – B

Water:

1. The source of water supply is Ground water. The water consumption shall not exceed the following after expansion.

Sl. No.	Purpose	Existing (as per CFO Order dt:01.03.2015)	Total water consumption after expansion
a)	Cooling makeup	1600 KLD	1600 KLD
b)	Boiler Feed	265KLD	265KLD
c)	DM Plant / RO Plant / Filtration Plant / clarifier	685 KLD	685 KLD
d)	Others	415 KLD	415 KLD
e)	Domestic	535 KLD	535 KLD
Total		3500 KLD	3500 KLD

2. The waste water generation shall be as following after expansion:

Sl. No.	Purpose	Existing (as per CFO Order dt:01.03.2015)	Total waste water generation after expansion
1.	Cooling	1100 KLD	1100 KLD
2.	DM Plant / RO Plant / Filtration Plant / clarifier	685 KLD	685 KLD
3.	Others	150 KLD	150 KLD
4.	Domestic	45 KLD	45 KLD
Total		1980 KLD	1980 KLD

Treatment & disposal:

Sl. No.	Effluent source	Treatment	Mode of final disposal
1.	Cooling water	-----	Recycled.
2.	Domestic	Existing Sewage Treatment Plant (STP) of Capacity 50KLD consisting of Bar screen chamber, septic tank, aerobic digester tank, Secondary settling tank , pre filtration tank, Dual media filter tank and treated water tank.	After treatment, the treated domestic waste water is utilized for on land for gardening in the premises.

3. The existing Sewage Treatment Plant (STP) shall be operated regularly. All the units of the STP shall be impervious to prevent ground water pollution.
4. Under no circumstances the waste water shall be discharged outside the factory premises. The zero discharge shall be implemented.
5. The effluents shall be treated to the on land for irrigation standards, stipulated under Environment (Protection) Rules, 1986, notified and published by Ministry of Environment and Forests, Government of India as specified in Schedule VI vide G.S.R.422 (E), dt.19.05.1993 and its amendments thereof, as stipulated in the CFO order dt. 16.03.2015.
6. Separate flow meters with totalisers to necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes mentioned below.
 - a) Industrial cooling.
 - b) Domestic purposes.
 - c) Processing, whereby water gets polluted and pollutants are easily bio-degradable.
 - d) Processing, whereby water gets polluted and the pollutants are not easily bio-degradable.

Air:

7. The industry shall comply with the following:

Sl. No	Details of Stack	Existing (As per CFO order dated: 01.03.2015)									
		Raw mill / Kiln	Clinker Cooler	Coal mill	Cement mill	Slag mill-I	Slag mill-II	Lime stone crusher	Packer - I	Packer - II	Packer - III
a)	Attached to:										
b)	Capacity	6000 TPD	--	1200 TPD	8400 TPD	8160 TPD	8160 TPD	28,800 TPD	6000 TPD	6000 TPD	6000 TPD
c)	Stack ht above the ground (m)	140 m	50 m	69 m	64 m	62.4 m	35 m	42m	35m	35m	35 m
d)	Air Pollution Control Equip:	Reverse air bag house (RABH)	Bag house with Heat Exchanger	Bag filters	Bag filters	Bag filters	Bag filters	Bag filters	Bag filters	Bag filters	Bag filters

Proposed:

No	Details of Stack	Stack -I & II
a)	Attached to	D.G. Sets
b)	Capacity of -	2MVA / 1.6 MW -(2nos)
c)	Fuel form	HSD-- 260 Ltr /Hr
d)	Fuel quantity: (L/kL per day)	
e)	Stack height above ground (m)	35 m
g)	Details of Air Pollution Control Equipment	Silencer with acoustic enclosure

Details of Fugitive Emissions	Control Equipment
Loading and unloading operations, stock yard, transfer points of conveyors	The industry maintain covers of all the material conveying conveyors and also provided bag filters (75Nos) at all transfer points to control dust emissions. The industry shall maintain automatized water sprinklers at (i) lime stone crusher dump hopper (ii) along the haulage roads from mine to lime stone crusher, (iii) lime stone belt conveyor and also along the haul roads. Fire hydrant system shall be maintained in coal storage shed for wetting of the coal.

8. **The clinker manufacturing unit shall comply with the standards stipulated by the MoEF&CC, GoI, vide Notification dt. 25.08.2014. The concentration of particulate matter in the stack emissions shall not exceed 30mg/Nm³, even after expansion, as committed vide letter dated 24.05.2016.**
9. The industry shall not store coal or any other raw material in open area.
10. The ESP and Bag filters shall be designed such that 25% of additional capacity is available as spare to meet the emergency requirements.
11. The industry shall provide concrete roads in the plant to avoid the fugitive dust emissions. Vacuum / pneumatic dust collection system shall be used for cleaning the internal roads.
12. The proponent shall provide online stack monitoring facility for all the major stacks and the data generated shall be networked with APPCB and CPCB for web display.
13. The proponent shall ensure compliance of the National Ambient Air quality standards notified by MOE&F, GOI vide notification No. GSR 826(E), dated. 16.11.2009, during construction and regular operational phase of the project.
14. A sampling port with removable dummy of not less than 15 cm diameter shall be provided in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc. A platform with suitable ladder shall be provided below 1 meter of sampling port to accommodate three persons with instruments. A 15 AMP 250 V plug point shall be provided on the platform.
15. The proponent shall provide interlocking system for air pollution control equipments provided with raw material feeding system so that the feeding of raw material would be stopped incase the air pollution control equipments fails.
16. The generator shall be installed in a closed area with a silencer and suitable noise absorption systems. The ambient noise level shall not exceed 75 dB (A) during day time and 70 dB (A) during night time.

Solid Waste:

17. The proponent shall comply with the following:

Sl. No	Solid Waste generated from	Existing Quantity	Total after expansion	Disposal Option
1	STP Sludge	3 TPM	3 TPM	Utilized as manure
2	Waste Grease	3825 Kg/annum	3825 Kg/annum	Sold to authorized Recyclers/ Reprocessors
3	Waste oil/Lubricating oil	10 KI/Annum	10 KI/Annum	
4	Process (dust from bag filters)	12 TPD	12 TPD	Re-used in the process.

18. All the bag filter dust, raw meal dust, coal dust, clinker dust and cement dust from pollution control devices shall be 100% recycled and reused in the process and used for cement manufacturing. Solid waste from sewage treatment plant (STP) shall be used as manure. No solid waste shall be disposed off from the cement plant. Spent oil, grease and grinding media shall be disposed to licensed vendors.
19. An effort shall be made to use of high calorific hazardous waste viz., spent carbon, spent solvent, Dolochar, spent earth from oil reclamation units, waste from welding shops, etc., in the cement kiln and necessary provision shall be made accordingly. Spent Acid shall be used for production of Gypsum. The company shall keep the record of the waste utilized and shall submit the details to the concerned Regional Office, APPCB along with flue gas monitoring reports as & when Hazardous Waste is used along with regular fuel.

20. The following rules and regulations notified by the MoE&F, GoI shall be implemented.
- a) Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.
 - b) Hazardous waste (Management, Handling and Transboundary Movement) Rules, 2008.
 - c) Fly Ash Notification, 2007.
 - d) Batteries (Management & Handling) Rules, 2010.
 - e) E-Waste (Management & Handling) Rules, 2011.

Other Conditions:

21. **The blast furnace slag shall be analyzed for presence of heavy metals and Radio-active metals. The analysis report shall be submitted at the time of applying for CFO (fresh).**
22. Existing green belt shall not be disturbed for the proposed activity.
23. The overall noise levels in and around the plant shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures, etc., on all sources of noise generation.
24. The proponent shall ensure that there shall not be any change in the process technology and scope of working without prior approval from the Board.
25. The proponent shall comply with all the directions issued by the Board from time to time.
26. Concealing the factual data or submission of false information/ fabricated data and failure to comply with any of the conditions mentioned in this order attracts action under the provisions of relevant pollution control Acts.
27. The Board reserves its right to modify above conditions or stipulate new / additional conditions and to take action including revoke of this order in the interest of environment protection.
28. The Board reserves its right to modify above conditions or stipulate any additional conditions including revocation of this order in the interest of environment protection.
29. 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 Water (Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.

MEMBER SECRETARY

To
M/s. JSW Cement Ltd,
Sy.No.139A & 183, etc.,
Bilakalagudur (V), Gadivemula (M),
Kurnool District ,A.P
narsimha.reddy@jsw.in