

BL/EMD/HOPB/F 04/016

PCB-ID-69109

Date: 19/09/2022

To

The Unit Head - Godhra Division,  
GPCB, Parvavaran Bhavan, Sector-10/A,  
**Gandhinagar** - 382 010  
E-mail:- [uh-gpcb-godh@gujarat.gov.in](mailto:uh-gpcb-godh@gujarat.gov.in)

**Sub.:** Regarding to submit the Environmental Statement Report in Form - V for the FY-2021-2022 of M/s. J.K. Cement Limited, Balasinor (Gujarat).

- Ref.:** 1. CCA-Amendment No.: AWH-109494, Dated of issue: 28/09/2020; Issued vide order No.: GPCB/CCA-PN-705/ID: 69109/569239, Dated: 05/10/2020.  
2. CCA-Amendment No.: AH-115081, Dated of issue: 23/08/2021; Issued vide order No.: GPCB/CCA-PN-705/ID: 69109/606300, Dated: 17/11/2021.  
3. CCA-Amendment No.: H-117888, Dated of issue: 30/03/2022; Issued vide order No.: GPCB/CCA-PN-705/ID: 69109/638057, Dated: 07/04/2022.

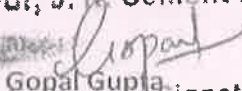
Dear Madam,

Kindly refer to the above subject matter and referred letter, we are submitting herewith the Environment Statement Report in Form - V of M/s. J.K. Cement Limited, Balasinor (Gujarat) for the FY: 2021-2022 for your kind reference and record please.

We trust you will find the same in order.

Thanking you,  
Yours faithfully,

For, J.K. Cement Limited, Balasinor  
For, J. K. Cement Ltd.

  
Gopal Gupta  
Authorised Signatory  
Unit Head

Encl.: As above.

**Cc to:** The Regional Officer, Gujarat Pollution Control Board, Haidri Society, Near DSP Office,  
Gita Nagar **Godhra**, - 389 001 (Gujarat). E-mail:- [ro-gpcb-godh@gujarat.gov.in](mailto:ro-gpcb-godh@gujarat.gov.in)

## Corporate Office

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## ENVIRONMENTAL STATEMENT

### FORM - V

Environmental Statement for the financial year 2021-22, ending the 31<sup>st</sup> March' 2022

### PART-A

i. Name an address of the owner/occupier of the industry operation or process	J. K. Cement Limited (Clinker Grinding Unit) (A Unit of JK Cement Limited), At Village: Vadadala, Tehsil: Balasinor, District: Mahisagar (Gujarat)
ii. Industry category Primary - (STC Code) Secondary - (STC Code)	Primary
iii. Production capacity	Cement - 1.00 Million TPA (94,500 MT Per Month)
iv. Year of establishment- (UNIT WISE)	7 <sup>th</sup> October, 2020
v. Date of last environmental statement submitted	25 <sup>th</sup> September, 2021

### PART-B

#### WATER AND RAW MATERIAL CONSUMPTION

i. WATER CONSUMPTION (in m<sup>3</sup>/day)

Process\* : 9.36 M<sup>3</sup>/Day

Domestic\*\* : 13.51 M<sup>3</sup>/Day

Name of products	Process water consumption per unit of products	
	During the previous financial year 2020-21 (KL/MT)	During the current financial year 2021-22 (KL/MT)
1. Pozzolana Portland Cement (PPC)/Ordinary Portland Cement (OPC)	0.027	0.0059

\* Process water consumption provided considering 340 plant running days.

\*\* Domestic water consumption provided based on the 365 days'.

ii. RAW MATERIAL CONSUMPTION

Name of Raw Material	Name of products	Consumption of Raw Material per unit of output	
		During the previous financial year 2020-21	During the current financial year 2021-22
Clinker	Cement	0.61	0.59
Gypsum		0.06	0.06
Fly Ash		0.32	0.35

PART-C

POLLUTION DISCHARGE TO ENVIRONMENT / UNIT OF OUTPUT

Pollutants	Quantity of pollutants discharged (Ton/Day)	Concentration of pollutants in discharge (mg/Nm <sup>3</sup> )	Percentage of variation from prescribed standards with reasons
(a) Water	Cement Grinding Unit is being operated on dry process technology, hence no liquid effluent is generated.		
	Domestic waste water generated from the office toilet and pantry are being discharged and treated in existing 10 KLD STP (Sewage Treatment Plant). STP treated water quality results are given below: -		
	J. K. CEMENT LIMITED , BALASINOR ANALYSIS OF SEWAGE WATER (STP OUTLET) FY 2021-22		
	S. No.	Parameters	Average Result
	1	pH	7.43
	2	Bio-Chemical Oxygen Demand (BOD) (3 Days at 27°C)	22.00 gm/l
(b) Air	3	Total Suspended Solids (TSS)	24.35gm/l
	4	Faecal Coliform (FC) (Most Probable Number 100 millilitre, MNP/1000 ml)	33.75
	1. Stack Emission Monitoring Report is attached as <b>Annexure - I.</b>		
(b) Air	2. Ambient Air Monitoring Report is attached as <b>Annexure - II.</b>		
	3. Ambient Air Noise Monitoring Report is attached as <b>Annexure - III.</b>		

**PART-D**

(As specified under Hazardous &amp; Other Waste Management Rules' 2016)

Hazardous waste	Total Quantity	
	During previous financial year 2020-21	During current financial year 2021-22
(a) From Process	Used oil (5.1) - NIL Waste oil (5.2) - NIL Empty Barrels -(33.1) - NIL Cont. cotton rags (33.2) - NIL	Used oil (5.1) - 1.380 MT Waste oil (5.2) - NIL Empty Barrels- (33.1) - NIL Cont. cotton rags (33.2) - NIL
(b) From Pollution Control facilities	NIL	NIL

\* Hazardous waste generated will be sold to registered recycler authorized by CPCB/GPCB.

**PART-E**  
**SOLID WASTE**

Source	Total Quantity	
	During previous financial year 2020-21 (MT/Year)	During current financial year 2021-22 (MT/Year)
(a) From process	Nil	Nil
(b) From pollution control facility	Dust collected in bag house and bag filters are recycled into the system	Dust collected in bag house and bag filters are recycled into the system
(c) Quantity rejected or reutilized with in the unit	100%	100%

**Other Waste**

Name of solid waste	Total Quantity	
	During previous financial year 2020-21	During current financial year 2021-22
Metal Scrap	59.82 MT	37.340 MT
Wooden Scrap	43.71 MT	7.640 MT
Cable Scrap	1.48 MT	3.250 MT
Torn PP Bags & Other Plastic Waste	8.37 MT	15.260 MT
Filter bags scrap	Nil	1.610 MT

#### PART-F

**PLEASE SPECIFY THE CHARACTERISATIONS (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.**

- 1) Hazardous waste generated in the form of used / spent oil, waste / residue containing oil, which is stored in barrels at safe & dedicated Storage area and being sold to registered recycler.
- 2) Dust collected from pollution control equipment's (i.e. from Bag house and Bag filter) is being 100% recycled in the manufacturing process.

#### PART-G

**IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION.**

Cement manufacturing is a dry process technology, hence no effluent generated from process. Which is cost effective and environmentally clean technology. The advantage of dry process is also in fuel economy. The stack emissions from the plant are controlled by equipment like Bag house/filters installed at various material transfer points to arrest the fugitive emissions. The particulate matter collected from the pollution control equipment is recycled in process and optimizing the cost of operation of pollution control equipment, conserving natural raw material and hence no impact on the environment. Domestic effluent generated from office building / plant premises being treated in existing STP and treated water is being reused in dust suppression & trees plantation/gardening.

#### PART-H

**ADDITIONAL MEASURES / INVESTMENT PROPOSALS FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT POLLUTION, PREVENTION OF POLLUTION.**

- 1) Closed clinker storage silo constructed to reduce the fugitive dust emission, with sufficient Bag filters.
- 2) Fly ash stored in closed silo constructed to reduce the fugitive dust emission, with sufficient Bag filters.
- 3) Gypsum stored in covered raw material yard to reduce the fugitive dust emission, with sufficient Bag filters.


## PART-I

### **ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT**

- 1) Monitoring of stack emission and ambient air and water quality is being done regularly as mentioned in consent to operate.
- 2) 3 Nos. of Ambient Air Quality Monitoring Systems have been installed at periphery of the plant.
- 3) Continuous Emission Monitoring Systems (CEMS) for PM have been installed at stack of Cement Mill and real time data transfer to Pollution Control Board server.
- 4) Bag Filters have been installed at various material transfer points to control fugitive emission.
- 5) Cement being manufacturing in dry process and there is no any effluent generated from the process hence maintaining Zero Liquid Discharge (ZLD) unit.
- 6) Fly ash purchased from nearby Thermal Power Plant and use for cement production of PPC.
- 7) Raw materials are stored in covered shed, product in closed silo with high efficient Bag Filters for control of fugitive dust emission.
- 8) Proper housekeeping and cleaning are being done with the help of Road Sweeping Machines.
- 9) .
- 10) All conveyor belts are fully covered & also equipped with Bag filters at all material transfer points.
- 11) Cemented Road constructed to avoid fugitive dust generation during the movement of vehicle.
- 12) Online Digital Water Level Recorder installed for online ground water level monitoring.
- 13) Industry has constructed 05 Nos. of Rain Water Harvesting Structures in plant to recharge ground water.
- 14) Total 7972 nos. of tree sapling planted inside the plant premises by covering 2.64 ha. area and achieved the 33% of greenbelt/ plantation area. Total plant area is 8.06 hectares.

Yours faithfully,

J. K. Cement Limited, Balasinor

  
Gopal Gupta  
Unit Head

## Annexure-I

## J. K. CEMENT LIMITED, BALASINOR

## Cement Mill Stack Emission Monitoring Results for FY: 2021-22

Month	PM (Monthly average in mg/Nm <sup>3</sup> )	PM (TPD)	PM (TPM)	PM (Kg/Tons of Cement)	% variation from prescribed standard
Apr-21	10.20	0.01	0.12	0.083	-19.80
May-21	12.80	0.01	0.18	0.056	-17.20
Jun-21	9.70	0.01	0.19	0.053	-20.30
Jul-21	10.60	0.01	0.17	0.059	-19.40
Aug-21	10.30	0.01	0.18	0.056	-19.70
Sep-21	7.10	0.01	0.14	0.071	-22.90
Oct-21	7.70	0.01	0.17	0.059	-22.3
Nov-21	8.10	0.01	0.10	0.100	-21.9
Dec-21	8.90	0.01	0.19	0.053	-21.1
Jan-22	8.00	0.01	0.17	0.059	-22.0
Feb-22	8.20	0.01	0.21	0.048	-21.8
Mar-22	8.50	0.01	0.22	0.045	-21.5



J. K. CEMENT LIMITED, BALASINORAMBIENT AIR QUALITY MONITORING DATA FOR THE FY 2021-22

MONTH	Near STP Plant Eastern Boundary				Near Project Office, North Direction				Near Security Tower, South Direction			
	PM10	PM2.5	SO2	NOx	PM10	PM2.5	SO2	NOx	PM10	PM2.5	SO2	NOx
Apr-21	48.93	29.88	10.36	20.78	50.42	31.67	11.10	21.82	50.55	28.81	11.79	21.06
May-21	35.38	26.35	11.52	16.97	28.63	27.38	10.55	17.18	27.51	27.23	11.53	15.44
Jun-21	47.23	34.91	13.59	22.33	46.24	30.25	12.18	21.32	32.80	31.49	11.70	22.14
Jul-21	37.46	26.31	12.26	21.55	47.33	28.81	11.70	22.14	35.00	25.34	10.09	16.42
Aug-21	46.54	26.91	11.62	16.83	40.73	26.86	10.42	17.03	40.69	28.54	11.43	15.30
Sep-21	43.71	34.68	13.49	22.16	43.19	30.14	12.08	21.14	41.99	31.37	11.55	21.88
Oct-21	46.69	28.56	12.01	21.04	43.64	32.70	11.72	22.18	44.48	32.11	10.05	16.36
Nov-21	40.31	26.84	11.31	16.35	42.36	39.37	10.41	16.99	40.42	32.59	11.34	15.20
Dec-21	37.46	27.92	12.26	21.55	47.33	30.25	11.70	22.14	35.00	26.82	10.09	16.42
Jan-22	43.05	24.50	11.52	20.13	45.78	32.69	11.71	22.17	44.48	31.58	10.05	16.36
Feb-22	42.95	26.06	11.31	16.35	41.88	35.65	10.21	16.69	39.90	30.85	11.34	15.20
Mar-22	37.80	27.69	12.41	21.17	45.13	30.65	11.96	22.11	45.16	27.09	9.94	17.25
Average	42.29	28.38	11.97	19.77	43.56	31.37	11.31	20.24	39.83	29.48	10.91	17.42

(Unit:  $\mu\text{g}/\text{m}^3$ )

## J. K. CEMENT LIMITED, BALASINOR

AMBIENT NOISE LEVEL MONITORING RESULT FOR THE FY: 2021-22

Unit: dB(A)

MONTH	Near STP Plant Eastern Boundary		Near Project Office, North Direction		Near Security Tower, South Direction	
	Day	Night	Day	Night	Day	Night
Apr-21	61.0	54.0	62.0	52.0	64.0	55.0
May-21	62.0	53.0	63.0	53.0	62.0	54.0
Jun-21	63.0	52.0	64.0	54.0	63.0	53.0
Jul-21	62.0	53.0	61.0	52.0	62.0	51.0
Aug-21	63.0	54.0	62.0	53.0	64.0	51.0
Sep-21	63.0	54.0	62.0	52.0	63.0	53.0
Oct-21	63.0	52.0	62.0	53.0	63.0	52.0
Nov-21	62.0	53.0	63.0	52.0	63.0	52.0
Dec-21	62.0	50.0	61.0	51.0	60.0	50.0
Jan-22	62.0	52.0	63.0	53.0	60.0	52.0
Feb-22	62.0	52.0	60.0	51.0	61.0	50.0
Mar-22	64.0	54.0	62.0	54.0	61.0	55.0
Average	62.4	52.8	62.1	52.5	62.2	52.3