

Ref. No. JKJharli/PC-01/945

Dated – 22nd September, 2022

The Member Secretary,
Haryana State Pollution Control Board
C-11, Sector-6, **Panchkula** 134 109

Sub.: Environmental Statement Report (Form - V) for the F. Year 2021 - 2022 of J.K.Cement Limited, Village - Jharli, Teshil - Matanhail, District - Jhajjar (Haryana).

Ref.: CTO: HSPCB/Consent/: 2776718 JHACTO4348463, Dated 21.01.2018.


Dear Sir,

With reference to above subject matter, please find enclosed herewith Environment Statement Report (Form - V) of J.K. Cement Limited, Jharli for the FY 2021 – 2022 for your reference and record. We believe you will find the same in order.

Thanking you,

Yours faithfully,

For JK Cement Limited



Kapil Agrawal
Unit Head

Encl.: Form - V along with Supporting Annexures (04 Nos.)

CC: The Regional Officer, Haryana State Pollution Control Board, SCF No. 42 & 43,
Shopping Centre, Sector-6, HUDA, Bahadurgarh, District: - Jhajjar (Haryana) - 124 507
Mail id:- hspcbrobdh@gmail.com

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JK SUPER
CEMENT
BUILD SAFE

Manufacturing Units at :

Nimbahera, Mangrol, Gotan (Rajasthan) | Muddapur (Karnataka)

Jharli (Haryana) | Katni (M.P.) | Aligarh (U.P.) | Balasinor (Gujarat)

JK CEMENT
WallMax
White Cement Wall Putty



ENVIRONMENTAL STATEMENT
FORM - V

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

PART-A

| | |
|---|---|
| i. Name an address of the owner/occupier of the industry operation or process | J.K. Cement Works, Jharli Village: Jharli, Tehsil: Matanhail, District: Jhajjar (Haryana) |
| ii. Industry category Primary - (STC Code) Secondary - (STC Code) | Primary |
| iii. Production capacity 1. Cement 2. Tile Adhesive | 2.0 Million TPA 30 MT/ Day |
| iv. Year of establishment- (UNIT WISE) | Year- 2014 |
| v. Date of last environmental statement submitted | 27.09.2021 |

PART-B

WATER AND RAW MATERIAL CONSUMPTION

i. **WATER CONSUMPTION** (in m3/day)

Process : 7.79 m3/day

Domestic : 47.81 m3/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. Cement | 0.0025 | 0.0019 |
| 2. Tile Adhesive | 0.0 | 0.0 |

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 | 0.59 | 0.55 |
| Gypsum | | 0.09 | 0.10 |
| Flyash % | | 0.28 | 0.32 |
| Pondash % | | 0.04 | 0.02 |
| Silica Sand | Tile Adhesive | 0.90 | 0.74 |
| Cement | | 0.03 | 0.24 |

PART-C

POLLUTION DISCHARGE TO ENVIRONMENT / UNIT OF OUTPUT

| Pollutants | Quantity of pollutants discharged (Ton/Day) | Concentration of pollutants in discharge (mg/Nm3) | Percentage of variation from prescribed standards with reasons |
|------------|--|---|--|
| (a) Water | Cement plant is being operated on dry process technology, hence no liquid effluent is generated. Domestic waste water generated from the office toilet and canteen is being treated in sewage treatment plant and treated water is being reused in plantation and horticulture. STP treated water analysis report is attached as Annexure-I | | |
| (b) Air | 1. Stack Emission Monitoring Report is attached as Annexure- II . 2. Ambient Air Monitoring Report is attached as Annexure- III . 3. Ambient Air Noise monitoring Report is attached as Annexure- IV . | | |

PART-D

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

| Hazardous waste | Total Quantity | |
|---------------------------------------|---|--|
| | During previous financial year (2020-21) (KL) | During current financial year (2021-22) (KL) |
| (a) From Process | Used Oil (Cat. 5.1) - 4.26 KL | Used Oil (Cat. 5.1) – 5.464 KL |
| (b) From Pollution Control facilities | Not applicable | Not applicable |

* Hazardous waste generated will be sold to authorized recycler authorized by CPCB.

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 | NONE | NONE |
| (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 Solid Waste

| <u>Name of solid waste</u> | Total Quantity | |
|--|--|---|
| | During previous financial year (2020-21) (MT/Year) | During current financial year (2021-22) (MT/Year) |
| Metal Scrap | 68.25 | 264.59 |
| Plastic Scrap | 6.92 | 60.43 |
| Empty Drums | 0 | 0 |
| Wooden scrap | 0 | 0 |
| Cable scrap | 0 | 0 |
| Paper Waste | 0 | 0 |
| Torn PP Bags & other misc. Plastic Waste | 0 | 0 |
| E-waste (Old computers, printers, circuit boards etc.) | 0 | 0 |
| Spent Batteries | 0 | 0 |
| Filter bags scrap | 0 | 0 |
| Cotton waste/cotton rags | 0 | 0 |

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 area and will be sold to recycler approved by Central Pollution Control Board.

- 2) Dust collected from pollution control equipment's (i.e. from Bag house and Bag filter) is totally recycled in the 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 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.

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 High efficiency Bag filters.
- 2) Fly ash stored in closed silo constructed to reduce the fugitive dust emission, with High efficiency Bag filters.

PART-I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT

- 1) Monitoring of stack emission and Ambient Air Quality and Water Quality is being done regularly as mentioned in consent to operate.
- 2) Ambient Air Quality Monitoring Stations (04 Nos.) 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 HSPCB & CPCB.
- 4) Bag filters (29 Nos) have been installed at various material transfer points to control fugitive emission and 02 No. Bag House has been installed at Cement Mill & Wagon tripper.
- 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.
- 7) Raw materials are stored in covered shed, product in closed silo with high efficient bag filters for fugitive dust emission control.

- 8) Proper Housekeeping and cleaning is being done with the help of road sweeping machines.
- 9) Cover shed Constructed to store the raw material, to avoid fugitive emission. Finish product stored in closed silo.
- 10) All Belt Conveyor belt are fully covered & also installed Bag filter at all material transfer points
- 11) Cemented road constructed to avoid fugitive dust generation during the movement of vehicle.
- 12) Ground water level monitoring being done.
- 13) Industry has constructed 09 Nos. of rain water harvesting structures in plant & nearby Villages to recharge ground water.
- 14) Total 107000 plants planted till July - 2022 and 107000 m² area covered (36.72% area) under green belt.

Yours faithfully,
For JK Cement Works, Jharli



Authorized signatory

J.K.Cement Works, Jharli (Haryana)
Sewage STP Treated Water Analyses Report (Quarterly)
(F. Year- 2021 - 2022)

| S. No. | Parameter | I st Quarter | II nd Quarter | III rd Quarter | IV th Quarter |
|--------|--|-------------------------|--------------------------|---------------------------|--------------------------|
| 1 | Bio-Chemical Oxygen Demand (BOD) (3 Days at 270C) (mg/l) | 18.00 | 17.00 | 19.00 | 18.60 |
| 2 | Chemical Oxygen Demand (COD)(mg/l) | 69.40 | 79.80 | 81.70 | 79.69 |
| 3 | Total Suspended Solids (TSS) (mg/l) | 23.00 | 28.00 | 31.00 | 29.00 |
| 4 | Oil & Grease (mg/l) | 0.42 | 0.49 | 0.46 | 0.43 |

J.K.CEMENT WORKS, JHARLI**Cement Mill Stack Emission Report****Year : 2021-22**

| Month | PM (monthly average in mg/NM3) | PM (TPD) | PM (TPM) | Mass Dust Load (Kg/Tons of Cement) | % variation from prescribed standard |
|---------|---------------------------------|----------|----------|------------------------------------|--------------------------------------|
| Apr-21 | 24.40 | 0.02 | 0.36 | 0.003 | -5.6 |
| May-21 | 29.50 | 0.02 | 0.32 | 0.003 | -0.5 |
| Jun-21 | 29.70 | 0.02 | 0.43 | 0.004 | -0.3 |
| Jul-21 | 29.80 | 0.02 | 0.41 | 0.004 | -0.2 |
| Aug-21 | 28.40 | 0.02 | 0.44 | 0.003 | -1.6 |
| Sep-21 | 17.60 | 0.02 | 0.39 | 0.003 | -12.4 |
| Oct-21 | 16.90 | 0.02 | 0.47 | 0.003 | -13.1 |
| Nov-21 | 17.20 | 0.02 | 0.31 | 0.003 | -12.8 |
| Dec-21 | 2.00 | 0.02 | 0.42 | 0.003 | -28 |
| Jan-22 | 2.00 | 0.02 | 0.34 | 0.003 | -28 |
| Feb-22 | 2.10 | 0.02 | 0.38 | 0.003 | -27.9 |
| Mar-22 | 2.00 | 0.02 | 0.52 | 0.003 | -28 |
| Average | 16.80 | 0.02 | 0.40 | 0.00 | -13.20 |

J.K.Cement Works, Jharli (Haryana)
Ambient Air Quality Report (Monthly Average Data in µg/M3)
(F. Year- 2021 - 2022)

| Month | Near Gate No. 1 | | | | Near Gate No. 2 | | | | Near Railway Line Side | | | | Near Wagon Trippler | | | |
|-----------|-----------------|-------|-----------------|-----------------|-----------------|-------|-----------------|-----------------|------------------------|-------|-----------------|-----------------|---------------------|-------|-----------------|-----------------|
| | PM10 | PM2.5 | NO _x | SO ₂ | PM10 | PM2.5 | NO _x | SO ₂ | PM10 | PM2.5 | NO _x | SO ₂ | PM10 | PM2.5 | NO _x | SO ₂ |
| April' 21 | 55.8 | 31.9 | 16.8 | 8.6 | 54.8 | 33.5 | 16.3 | 9.0 | 48.0 | 33.7 | 16.5 | 8.8 | 55.4 | 33.5 | 17.6 | 9.1 |
| May' 21 | 55.4 | 33.2 | 16.2 | 8.2 | 54.7 | 34.3 | 15.5 | 9.1 | 44.6 | 32.2 | 17.0 | 9.1 | 54.1 | 32.2 | 17.1 | 8.8 |
| June' 21 | 54.3 | 32.3 | 16.4 | 8.2 | 54.6 | 34.1 | 16.9 | 9.0 | 48.4 | 34.5 | 17.6 | 9.1 | 52.8 | 34.2 | 19.1 | 8.7 |
| July' 21 | 53.4 | 33.8 | 16.3 | 8.2 | 54.4 | 35.3 | 16.7 | 8.7 | 44.6 | 34.6 | 16.2 | 8.6 | 53.7 | 34.9 | 19.8 | 9.2 |
| Aug' 21 | 55.0 | 33.7 | 17.2 | 8.5 | 52.0 | 35.3 | 16.9 | 8.8 | 46.8 | 35.6 | 16.8 | 8.6 | 47.1 | 33.2 | 19.9 | 8.8 |
| Sept.' 21 | 56.6 | 36.4 | 17.5 | 9.0 | 56.3 | 35.5 | 16.2 | 8.1 | 53.2 | 33.0 | 14.4 | 7.3 | 53.2 | 33.3 | 14.6 | 7.5 |
| Oct.' 21 | 55.2 | 34.8 | 19.7 | 9.2 | 54.6 | 34.5 | 19.4 | 9.0 | 53.9 | 33.7 | 19.7 | 8.5 | 53.1 | 33.6 | 19.1 | 8.7 |
| Nov.' 21 | 58.0 | 38.1 | 20.3 | 9.2 | 56.7 | 36.9 | 19.7 | 9.1 | 55.6 | 35.2 | 18.3 | 8.6 | 55.3 | 34.7 | 18.6 | 8.6 |
| Dec.' 21 | 63.0 | 42.4 | 22.7 | 9.7 | 61.0 | 40.6 | 21.2 | 9.4 | 57.8 | 37.0 | 18.4 | 8.8 | 57.2 | 37.2 | 18.8 | 8.9 |
| Jan.' 22 | 64.1 | 43.4 | 23.0 | 9.7 | 61.3 | 40.7 | 21.0 | 8.7 | 56.7 | 36.7 | 17.8 | 8.7 | 55.2 | 36.1 | 17.5 | 8.8 |
| Feb.' 22 | 61.5 | 42.2 | 20.8 | 9.7 | 59.0 | 39.4 | 19.2 | 9.4 | 56.3 | 37.0 | 17.7 | 8.9 | 55.9 | 36.3 | 17.1 | 8.9 |
| March' 22 | 61.2 | 41.6 | 18.9 | 10.8 | 58.9 | 38.6 | 18.4 | 10.1 | 58.2 | 38.4 | 15.8 | 9.7 | 55.7 | 37.8 | 18.0 | 10.1 |
| Average | 58.2 | 37.9 | 19.3 | 9.2 | 56.9 | 37.1 | 18.5 | 9.0 | 53.2 | 35.6 | 17.3 | 8.7 | 53.9 | 35.1 | 18.2 | 8.8 |

J.K. CEMENT WORKS, JHARLI
Ambient Noise Monitoring in dB(A) 2021-22

| Location | Gate No -1 | | Gate No -2 | | Railway Line Side | | Near Wagon Tippler | |
|----------|------------|-------|------------|-------|-------------------|-------|--------------------|-------|
| | Day | Night | Day | Night | Day | Night | Day | Night |
| Apr-21 | 63.5 | 47.2 | 65.1 | 49.2 | 60.2 | 49.7 | 61.7 | 47.3 |
| | 67.4 | 55.3 | 62.3 | 46.4 | 67.6 | 52.5 | 57.2 | 45.6 |
| May-21 | 67.2 | 53.2 | 67.3 | 54.6 | 72.5 | 66.8 | 63.2 | 54.8 |
| | 71.4 | 65.4 | 65.1 | 53.5 | 70.5 | 64.5 | 66.8 | 56.7 |
| Jun-21 | 70.1 | 60.5 | 68.3 | 51.4 | 60.1 | 50.4 | 64.2 | 56.4 |
| | 71.3 | 61.7 | 61.5 | 52.2 | 65.1 | 52.1 | 62.3 | 54.1 |
| Jul-21 | 69.5 | 61.3 | 70.9 | 52.5 | 64.3 | 53.8 | 64.7 | 55.1 |
| | 70.8 | 63.4 | 63.8 | 51.9 | 66.9 | 52.9 | 69.5 | 55.1 |
| Aug-21 | 71.5 | 62.8 | 68.4 | 58.3 | 68.5 | 57.8 | 69.5 | 57.4 |
| | 70.4 | 65.8 | 72.8 | 60.9 | 69.3 | 56.8 | 71.5 | 66.2 |
| Sep-21 | 71.6 | 53.2 | 70.3 | 54.1 | 63.2 | 52.7 | 68.5 | 53.2 |
| | 69.6 | 55.2 | 62.4 | 53.7 | 64.8 | 51.6 | 69.6 | 58.2 |
| Oct-21 | 66.5 | 56.2 | 63.2 | 52.5 | 62.1 | 49.2 | 64.2 | 51.0 |
| | 65.5 | 50.2 | 56.2 | 46.5 | 68.0 | 52.7 | 61.5 | 45.2 |
| Nov-21 | 65.5 | 56.2 | 61.2 | 52.5 | 64.1 | 49.2 | 63.2 | 51.0 |
| | 62.5 | 50.2 | 56.2 | 46.5 | 67.0 | 52.7 | 65.5 | 45.2 |
| Dec-21 | 66.4 | 57.6 | 65.6 | 53.1 | 61.6 | 56.7 | 66.2 | 56.8 |
| | 64.1 | 55.5 | 62.2 | 53.8 | 61.8 | 56.7 | 64.6 | 53.2 |
| Jan-22 | 64.2 | 53.7 | 63.5 | 52.8 | 65.9 | 55.1 | 64.2 | 52.6 |
| | 65.3 | 56.2 | 61.6 | 54.5 | 63.8 | 54.5 | 65.3 | 54.4 |
| Feb-22 | 62.8 | 56.5 | 66.7 | 57.1 | 66.1 | 57.8 | 67.9 | 56.3 |
| | 67.4 | 60.3 | 67.5 | 56.7 | 65.5 | 55.3 | 62.3 | 55.6 |
| Mar-22 | 61.9 | 55.1 | 65.8 | 56.7 | 67.3 | 58.4 | 62.8 | 52.7 |
| | 66.2 | 59.6 | 68.3 | 57.6 | 63.8 | 54.9 | 64.7 | 56.1 |
| Average | 67.2 | 57.2 | 64.8 | 53.3 | 65.4 | 54.8 | 65.0 | 53.8 |