BHILAI JAYPEE
CEMENT LIMITED

Registered A/D

Date: 09.08.2018

BJCL/ENV/ESR/2017-18/01

To,
Member Secretary
MP Pollution Control Board
Paryavaran Pariser,
E-5, Arera colony
Bhopal (MP) -462016

Sub: Submission of Environmental Statement Report for the year 2017-18

Ref: 1. Environmental Clearance Letter No. J-11011/29/2008-1A-II(I) dated 21st July2009.
2. DG Set consent Letter No. 5246 & 5248/TS/MPPCB/2013 dtd. 23.07.2013.

Dear Sir,

Please find the following enclosed **Environment Statement Report (Form-V)** for the year **2017-18** of our Cement Plant capacity 1.3 MTPA Clinker, 0.6 MTPA Cement, Ispat Limestone Quarry ML-I capacity 0.6 MTPA, Ispat Limestone Quarry ML-II Capacity 1.5 MTPA and DG Set capacity 5x1500 KVA unit of Bhilai Jaypee Cement Limited, located at village Babupur, Satna (MP) for your kind information and record pl.

Enclosures:

1. Environment Statement Report of Cement Plant
2. Environment Statement Report of Ispat Limestone Quarry (ML-I)
3. Environment Statement Report of Ispat Limestone Quarry (ML-II)
4. Environment Statement Report of D.G Set (5X1500 KVA)

Regards,

Yours faithfully
For Bhilai Jaypee Cement Ltd.
Babupur (Satna) MP

C. K. Shrivastav
General Manager (P&QC)

Cc to:

Director, Regional Office - For kind information pl.
Ministry of Environment & Forests,
Regional Office, (WZ), Kendriya Paryavaran Bhawan ,
Link Road -3, Ravishankar Nagar, Bhopal (M.P)-462016

2. Zonal Officer - For kind information pl.
Central Pollution Control Board, 3rd Floor, Sahkar Bhavan,
North T.T Nagar, Bhopal (M.P) – 462003

3. Regional Officer, MP Pollution Control Board - For kind information pl.
Rewa Road, Maihar Bipa'ss
Satna (MP) – 485001

JAYPEE GROUP

Plant : Post Babupur, Satna (M.P.) Pin - 485112 Ph.:+ 91(7672) 415500,415600
Regd. Office : Bhilai Township, Bhilai , Durg, Chattisgarh - 490 006
Head. Office : 'JA House', 63, Basand Lok, Vasant Vihar, New Delhi-110 057 (India)
Ph. : +91 (11) 26141540, 26147411 Fax : + 91 (11) 26145389, 26143591
website : www.bjcl.co.in, CIN : U26940CT2007PLC020250

A JV of SAIL & JAIPRAKASH ASSOCIATES LIMITED

FORM- V

ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR 2017-18
M/S BHILAI JAYPEE CEMENT LIMITED, BABUPUR, SATNA (MP)

PART- A

(i)	Name and address of the owner/ Occupier of the Industry, operation or process	:	**Bhilai Jaypee Cement Plant Babupur – 485112, Satna (M.P.)**
(ii)	Industry Category	:	Red and Large Industry
(iii)	Production Capacity	:	**1.3 Million Tons per Annum (Clinker)** **0.6 MTPA (Cement)**
(iv)	Year of Establishment	:	**January, 2010**
(v)	Date of Last Environment Statement Submitted	:	**21.09.2017**

PART- B
WATER AND RAW MATERIAL CONSUMPTION

(i) Water Consumption

Water consumption- m^3 /day		**Remarks**
Cooling: (Spraying)	**368.90**	**Water consumption in FY 2017-18 is less due to plant stoppage.(Kiln running 185.5 days only)**
Domestic	**252.97**	
Process	**Nil**	

Name of Products	**Water consumption per unit of Products**	
	During the previous Financial Year (2016-17)	**During the Current Financial Year (2017-18)**
1. Clinker	0.461 M^3/MT	0.245 M^3/MT

(ii) Raw Material Consumption

Name of raw material consume	**Name of products**	**Consumption of raw material Per unit of Products (MT)**	
		During the previous Financial Year (2015-16)	**During the Current Financial Year (2017-18)**
1. Limestone	**Clinker**	**1.455**	**1.491**
2. Additive (Iron ore/ Laterite/ High Gr. Laterite/ Bauxite)		**0.034**	**0.023**
3. Coal +Petcoke		**0.135**	**0.129**

PART- C
Pollution discharges to environment/ unit of output.
(Parameter as specified in the consent issued)

(i)	**Quality of Pollutants**	**Concentration of**	**Percentage of**

Pollution	Discharged (Mass/day)	Pollutants discharges (mass/volume)	variation from prescribed standards
(a) Colonial Waste Water	**Domestic waste water treated in 500 KLD capacity STP and treated water utilized in green belt development and dust suppression hence Zero discharge is maintained**		
(b) Industrial	**No waste water is generated in process hence Zero discharge is maintained**		
Stack emission	**a) Kiln B .H - 0.175 MT/Day** **b) Cooler ESP Stack - 0.1173 MT/day** **c) Coal Mill Bag House stack - 0.0297MT/Day** **d) Limestone Crusher Bag filter - 0.0079MT/Day**	**20.1 mg/Nm3** **20.61mg/Nm3** **18.41 mg/NM3** **10.04 mg/Nm3**	Within the permissible limit

PART- D
(HAZARDOUS WASTES)

Hazardous Wastes	Total Quantity (MT) Disposed	
	During the previous financial year (2016-17)	During the current financial year (2017-18)
(a) From process	Used Oil : 3.39 Waste Oil : 1.98	Used Oil : NIL Waste Oil :NIL
(b) E-Waste	NIL	NIL
(c) Used Batteries	1.17 MT	0.7 MT
(b) From pollution Control Facilities	Nil	Nil

PART- E
SOLID WASTES

TOTAL QUANTITY (Ts)		
	During the Previous Financial Year (2016-17)	During the Current Financial Year (2017-18)
(a) From Pollution Control Equipment	**No solid waste is generated from the cement manufacturing process as all are recycled back into process.**	**No solid waste is generated from the cement manufacturing process as all are recycled back into process.**
(b) From Process	**No solid waste is generated from the cement manufacturing process as all are recycled back into process.**	**No solid waste is generated from the cement manufacturing process as all are recycled back into process.**

PART- F

Please specify the characterizations (in terms of composition of quantum) of Hazardous as well solid water and indicate disposal practice adopted for both these categories of wastes.

Hazardous waste: All the used oil, waste oil, burnt grease generated from the different sections of plant is being collected in empty drums and barrels and then sent to Store Deptt for proper handling and storage. Collected hazardous waste at specified location as per Hazardous Waste (Management, Handling & Transboundary Movement) Rule, 2008 from where the stored hazardous waste is being sold out to authorized recyclers.

Solid waste Disposal: The solid waste is generated in the form of MS scrap sent to Hi-Tech casting centre for recycling. Used refractory bricks were collected by Refractory bricks manufacturer for reuse, used tires, rejected rubber belts, filter bags, are generated during cement manufacturing process & these solid wastes are being sold to authorized parties

Solid waste:

S.No.	Particulars	Quantity	Disposal (Sold to authorized recycler)
1.	Belt conveyor Scrape	20.2 MT	1. Ganesh Belting store
2.	Filter bags scrape	523 nos.	2. Yusuf Ali Satna
3.	Used tires	15 nos.	3. Yusuf Ali Satna
Used Batteries:			
	Batteries	10 Nos	M/s Loya Enterprises Satna (M.P.)

PART- G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

- The plant is equipped with best available technology for Air Pollution Control devices such as Bag House, ESP, Bag Filters etc designed to control the emission level below 30 mg/Nm^3 from any of the stacks installed at our plant.

- We are successfully managing the ambient SPM level below the prescribed levels by installation of water spray system at each of the transfer points of raw materials conveying belts.
- Covered belt conveyors, water sprinklers on raw materials & coal conveyors and concreted roads for vehicular movement inside the plant premises.

- The company has undertaken various energy efficiency improvement measures & process modifications which helped to significantly reduce the overall energy consumption to enable us to achieve our ultimate goal of GHG emission reduction and positive contribution.
- Following steps were taken in connection with conservation of energy:-
- Replaced 06 Nos. 400 Watt HPSV fittings street lights with 36 watt LED street lights. The saving of power consumption was 0.06 Lacs Kwh and Rs. 0.41 Lacs per annum.
- Replaced 10 Nos. 400 Watt HPSV fittings street lights with 36 watt LED street lights. The saving of power consumption was 0.013 Lacs Kwh and Rs. 0.089 Lacs per annum
- Replacement of 23 No 36 watt Fluorescent tube lights with 19 watt LED tube light .The saving of power consumption was 0.0099 lacs KWH and Rs 0.066 Lacs per annum.
- Replacement of 90 No 36 watt Fluorescent tube light fitting with 19 watt LED tube light fittings. The saving of power consumption was 0.004 lacs KWH and Rs 0.025 lacs per annum.
- Initiatives were taken to implement innovative ideas (generated in Quality Circles and Interactive forums) and benefits derives from it are as follows.

Thus, the pollution abatement & other energy conservation practices adopted by us save precious raw material/ product and greatly help in conserving valuable natural resources.

PART- H

Additional measures/investment proposal for environmental protection including abatement of pollution, prevention of pollution.

1. Replacement of damaged filter bags in bag filters and Bag House to effectively control the dust emission during material transport to improve the air quality inside the plant premises.
2. Green belt development in and around the plant premises
3. Constructed concrete roads in and around factory premises.

4. Continuous water spraying on roads for controlling the fugitive emission.
5. Fog type water sprinkler installed at coal yard.
6. Good housekeeping practices being followed to avoid dust deposition on roads.
7. Procured Ride on type diesel operated sweeping machine for good housekeeping.
8. Recurring & Maintenance cost of Pollution Control Devices.

PART- I

Any other particulates in respect of environmental protection and abatement of pollution.

1. Pet coke in Cement Kiln: -5410 MT
2. RDF: 14 MT

Prepared By
Dated: 09.08.2018

For M/s Bhilai Jaypee Cement Ltd.

(Authorized Signatory)
C.K Shrivastav
General Manager (P&QC)

FORM- V

ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR 2017-18

M/S BHILAI JAYPEE CEMENT LIMITED, BABUPUR, SATNA (MP)
Unit: DG Set (5x1500 KVA)

ENVIRONMENTAL STATEMENT FOR THE FINANCIALYEAR ENDING THE 31st MARCH 2018

PART – A

(I)	Name & Address of the Owner / Occupier of the Industry Operation or Process	**Bhilai Jaypee Cement Limited Babupur – 485112, Satna (M.P.)**
(II)	Industry Category	Red Category and Large industry
(III)	Production Capacity	5 x 1500 KVA (DG Set)
(IV)	Year of Establishment	5th August 2010
(V)	Date of last Environmental Statement Submitted	**21.09.2017**

PART- B
WATER AND RAW MATERIAL CONSUMPTION

(i) Water consumption - m^3 /day

Cooling: (Spraying) : **NIL (Stand by)**

Domestic : **DG Set installed in BJCL premises (No additional water req.)**

Process : **Nil**

Name of Products	**Water consumption per unit of Products**	
	During the previous Financial Year (2016-17)	**During the Current Financial Year (2017-18)**
1. Electricity	Nil	Nil

(ii) **Raw Material Consumption**

Name of raw material consume	**Name of products**	**Consumption of raw material / Unit of Product**	
		During the previous Financial Year (2016-17)	**During the Current Financial Year (2017-18)**

4. Diesel (HSD)	**Electricity**	**0.865 Ltr/KWH**	**1.859 Ltr/KWH**

PART- C

Pollution discharges to environment/ unit of output.

(Parameter as specified in the consent issued)

(i) Pollution	**Quality of Pollutants Discharged (Mass/day)**	**Concentration of Pollutants discharges (mass/volume)**	**Percentage of variation from prescribed standards**
(a) Colonial Waste Water	**Nil**		
(b) Industrial	**Nil**		
Air (AAQM) **East :** **West :** **North :** **South :**	**-**	Annual Average data (PM-10) **62.00 µg/m^3** **61.84 µg/m^3** **61.23 µg/m^3** **61.80 µg/m^3**	Ambient air quality is within the permissible limits

PART- D

HAZARDOUS WASTES

Hazardous Wastes	**Total Quantity (Kg)**	
	During the previous financial year (2016-17)	**During the current financial year (2017-18)**
(a) From process	NIL	Used Oil (5.1) – Nil
(b) From pollution Control Facilities	NIL	NIL

PART- E

SOLID WASTES

TOTAL QUANTITY (Ts)		
	During the previous Financial Year (2016-17)	**During the Current Financial Year (2017-18)**
(c) From Pollution Control Equipment	**Nil**	**Nil**
(d) From Process	**Nil**	**Nil**

PART- F

Please specify the characterizations (in terms of composition of quantum) of Hazardous as well solid water and indicate disposal practice adopted for both these categories of wastes.

Hazardous waste generation: Nil (DG Set is standby unit and its running hours is very less. Small quantity waste generated is added with Plant HW)

Solid waste disposal: NIL

PART- G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

DG Set is installed in the Plant premises.

PART- H

Additional measures/ investment proposal for environmental protection including abatement of pollution, prevention of pollution.

1 Green belt development in and around the Plant & DG Set premises
2. Concrete roads in and around factory premises.
3. Continuous water spraying on roads for controlling the fugitive emission.
4. Good housekeeping practices being followed to avoid dust deposition on roads.
5. Mechanical road sweeping machine is in operation.
6. Installed two nos of CAAQMS.

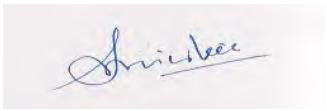
PART- I

Any other particulates in respect of environmental protection and abatement of pollution.

DG Set is installed in the Cement Plant Premises

Prepared By
Dated: 9.08.2018

For M/S Bhilai Jaypee Cement Ltd.



(Authorized signatory)
C.K Shrivastav
General Manager (P&QC)

FORM- V

ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR 2017-18

ISPAT LIMESTONE QUARRY (ML-I)
Mine Lease Area -- 590.22 ha
Unit : BHILAI JAYPEE CEMENT LTD. BABUPUR, SATNA(MP)

PART- A

(i)	Name and address of the owner/ Occupier of the Industry, operation or process	:	**Ispat Limestone Quarry (ML-I)** **Unit: BHILAI JAYPEE CEMENT LTD.** **Babupur, Satna (M.P.) - 485112**
(ii)	Industry Category	:	**Red and Large industry**
(iii)	Production Capacity	:	**0.6 MTPA Limestone**
(iv)	Year of Establishment	:	**January, 2010**
(v)	Date of last Environment Statement Submitted	:	**21.09.2017**

PART- B
WATER AND RAW MATERIAL CONSUMPTION

(iii) Water consumption - m^3 /day

Cooling: (Spraying)	:	**95.0 (Mine pit water)**
Domestic	:	**49**
Process	:	**Nil**

Name of Products	**Water consumption per unit of Products M^3/Ton**	
	During the previous Financial Year (2016-17)	**During the Current Financial Year (2017-18)**
1. Limestone	0.089 M^3 / MT of LS	0.0176 M^3 / MT of LS

Raw Material Consumption

Name of raw material consume	**Name of products**	**Consumption of raw material / Unit of Product**	
		During the previous Financial Year (2016-17)	**During the Current Financial Year (2017-18)**
5. Diesel (HSD) 6. Slurry Explosive(83mm) 7. Colum charge (83mm)	**Limestone**	1.089 Lit /MT of Limestone 0.038 Kg /Tones of Limestone 0.055 Kg /Tones of Limestone	0.851 Lit /MT of Limestone 0.054Kg /Tones of Limestone 0.138 Kg /Tones of Limestone

PART- C

Pollution discharges to environment/ unit of output.

(Parameter as specified in the consent issued)

(i) Pollution	Quality of Pollutants Discharged (Mass/day)	Concentration of Pollutants discharges (mass/volume)	Percentage of variation from prescribed standards
(a) Colonial Waste Water	**Zero discharge is maintained**		
(b) Industrial	**Zero discharge is maintained**		
Air (AAQM)	Ambient Air Quality (Annual Avg.) **$PM_{2.5}$** **PM_{10}**	**Annual average data** **Direction Avg. Result** East - 23.91 µg/M^3 West - 24.13 µg/M^3 North - 23.65 µg/M^3 South - 23.91 µg/M^3 East - 60.34 µg/M^3 West - 61.50 µg/M^3 North - 61.25 µg/M^3 South - 60.16 µg/M^3	Ambient air quality is within the permissible limits

PART- D

HAZARDOUS WASTES

Hazardous Wastes	Total Quantity (MT)	
	During the previous financial year (2016-17)	During the current financial year (2017-18)
(a) From process	1.05 (ML-I & ML-II)	NIL (ML-I & ML-II)
(b) From pollution Control Facilities	N.A.	N.A.

PART- E

SOLID WASTES

TOTAL QUANTITY (Ts)		
	During the previous Financial Year (2016-17)	During the Current Financial Year (2017-18)
(a) From Process- Over Burden from mine	11931.167	**102214.0**
(b) From Pollution Control facilities	**Nil**	**Nil**
(c) Qty. recycled or reused Within the unit.	NIL	NIL

PART- F

Please specify the characterizations (in terms of composition of quantum) of Hazardous as well solid water and indicate disposal practice adopted for both these categories of wastes.

Hazardous waste: All the used oil, waste oil, generated from the HEME is being collected in empty drums and barrels and then sent to store deptt for proper handling and storage. Collected hazardous waste at specified location as per Hazardous Waste (Management, Handling & Transboundary Movement) Rule, 2008 from where the stored hazardous waste is being sold out to authorized recyclers.

Solid waste - Over burden dumped at earmarked location and will be reused for back filling in mined out area.

PART- G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

Pollution Control Measures Adopted for Control of Pollution

1. Wet drilling system is adopted for control the fugitive dust emission.
2. Water sprinkling on haul roads by water tanker of capacity 15.0 KL for control of dust emission.
3. Blasting is done with Nonel to control the ground vibrations and AOP.
4. Top soil is stack at earmarked location and reused for plantation work.
5. Green Belt Development Measures: As a part of green belt development, planted more than 3550 plant saplings in mine and Colony area during financial year 2016-17.

Monitoring: We have established fully equipped Environment Lab with modern instrument facilities for monitoring environment parameters under control of Jt. President (Technical).

PART- H

Additional measures/ investment proposal for environmental protection including abatement of pollution, prevention of pollution.

Ground vibration study was done by CIMFR, Dhanbad for optimized of blasting.

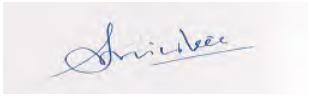
PART- I

Any other particulates in respect of environmental protection and abatement of pollution.

NIL

Prepared By
Dated: 09.8.2018

For M/S Bhilai Jaypee Cement Ltd.



(Authorized signatory)
C.K Shrivastav
General Manager(P&QC)

FORM- V

ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR 2017-18

ISPAT LIMESTONE QUARRY (ML-II)
Mine Lease Area -- 1033.99 ha
Unit : BHILAI JAYPEE CEMENT LTD. BABUPUR, SATNA(MP)

PART- A

(i)	Name and address of the owner/ Occupier of the Industry, operation or process	:	**Ispat Limestone Quarry (ML-II)** **Unit: BHILAI JAYPEE CEMENT LTD.** **Babupur, Satna (M.P.) - 485112**
(ii)	Industry Category	:	Red and Large Industry
(iii)	Production Capacity	:	**1.5 MTPA Limestone**
(iv)	Year of Establishment	:	**January, 2010**
(v)	Date of Last Environment Statement: Submitted		**21.09.2017**

PART- B
WATER AND RAW MATERIAL CONSUMPTION

(iv) Water consumption - m^3 /day

Cooling: (Spraying)	:	**95.00 (Mine pit water)**
Domestic	:	**49 (For Both Mines)**
Process	:	**Nil**

Name of Products	Water consumption per unit of Products M^3/Ton		Remarks
	During the Previous Financial Year (2016-17)	During the Current Financial Year (2017-18)	Mine Production is very less due to Kiln stoppage.
1. Limestone	0.054 M^3 / MT of LS	0.0188 M^3 / MT of LS	

Raw Material Consumption

Name of raw material consume	Name of products	Consumption of raw material / Unit of Product	
		During the previous Financial Year (2016-17)	During the Current Financial Year (2017-18)
8. Diesel (HSD) 9. Slurry Explosive(83mm) 10. Colum charge (83mm)	**Limestone**	1.089 Lit /MT of Limestone 0.38 Kg /Tones of Limestone 0.055 Kg /Tones of Limestone	0.851 Lit /MT of Limestone 0.054 Kg /Tones of Limestone 0.138 Kg /Tones of Limestone

PART- C

Pollution discharges to environment/ unit of output.

(Parameter as specified in the consent issued)

(i) Pollution	**Quality of Pollutants Discharged (Mass/day)**	**Concentration of Pollutants discharges (mass/volume)**	**Percentage of variation from prescribed standards**
(a) Colonial Waste Water	**Zero discharge is maintained**		
(b) Industrial	**Zero discharge is maintained**		
Air (AAQM)	Ambient Air Quality (Annual average data) **$PM_{2.5}$** **PM_{10}**	Annual Average data **Direction Avg. Result** East - 23.91 µg/M^3 West - 24.13 µg/M^3 North - 23.65 µg/M^3 South - 23.91 µg/M^3 East - 60.34 µg/M^3 West - 61.50 µg/M^3 North - 61.25 µg/M^3 South - 60.16 µg/M^3	Ambient air quality is within the permissible limits

PART- D

HAZARDOUS WASTES

Hazardous Wastes	**Total Quantity (MT)**	
	During the previous financial year (2016-17)	**During the current financial year (2017-18)**
(a) From process	1.05 (For Both Mine)	NIL
(b) From pollution Control Facilities	N.A.	N.A.

PART- E

SOLID WASTES

TOTAL QUANTITY (Ts)		
	During the previous Financial Year (2016-17)	**During the Current Financial Year (2017-18)**
(a) From Process- Over Burden from mine	12966.14	95728
(b) From Pollution Control facilities	Nil	Nil
(c) Qty. recycled or reused Within the unit.	NIL	NIL

PART- F

Please specify the characterizations (in terms of composition of quantum) of Hazardous as well solid water and indicate disposal practice adopted for both these categories of wastes.

Hazardous waste: All the used oil, waste oil, generated from the HEME is being collected in empty drums and barrels and then sent to store deptt for proper handling and storage. Collected hazardous waste at specified location as per Hazardous Waste (Management, Handling & Transboundary Movement) Rule, 2008 from where the stored hazardous waste is being sold out to authorized recyclers.

Solid waste: Over burden dumped at earmarked location and will be reused for back filling in mined out area.

PART- G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

Pollution Control Measures Adopted for Control of Pollution

6. Wet drilling system is adopted for control the fugitive dust emission.
7. Water sprinkling on haul roads by water tanker of capacity 15.0 KL for control of dust emission.
8. Blasting is done with Nonel to control the ground vibrations and AOP.
9. Top soil is stack at earmarked location and reused for plantation work.
10. Green Belt Development Measures: As a part of green belt development, planted more than 3500 plant saplings in mine and Colony area during financial year 2017-18.

Monitoring: We have established fully equipped Environment Lab with modern instrument facilities for monitoring environment parameters under control of Jt. President (Technical).

PART- H

Additional measures/ investment proposal for environmental protection including abatement of pollution, prevention of pollution.

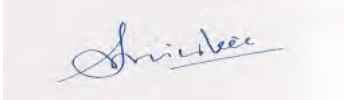
Ground vibration study was done by CIMFR, Dhanbad for optimized of blasting.

PART- I

Any other particulates in respect of environmental protection and abatement of pollution.

Prepared By
Dated: 27.07.2018

For M/S Bhilai Jaypee Cement Ltd.



(Authorized signatory)
C.K Shrivastav
General Manager (P&QC)