

Registered A/D

# BHILAI JAYPEE CEMENT LIMITED

Date: 21.09.2017

BJCL/ENV/ESR/01/2016-17

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

**Sub: Submission of Environmental Statement Report for the year 2016-17**

Ref-1: Environmental Clearance Letter No. J-11011/29/2008-1A-II(I) dated 21<sup>st</sup> July 2009.  
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 **2016-17** 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

*B.K. Agrawal*  
B.K. Agrawal

Jt. President (Technical).

Cc to:

1. Director, Regional Office  
Ministry of Environment & Forests,  
Regional Office, (WZ), Kendriya Paryavaran Bhawan,  
Link Road -3, Ravishankar Nagar, Bhopal (M.P)-462016  
- For kind information pl.
2. Zonal Officer  
Central Pollution Control Board, 3<sup>rd</sup> Floor, Sahkar Bhawan,  
North T.T Nagar, Bhopal (M.P) - 462003  
- For kind information pl.
3. Regional Officer, MP Pollution Control Board  
Rewa Road, Maihar  
Satna (MP) - 485001  
- For kind information pl.

**JAYPEE**

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, Basant Lok, Vasant Vihar, New Delhi -110 057 (India)  
Ph.: +91 (11) 26141540, 26147411 Fax: + 91 (11) 26145389, 26143591  
website : www.bjcl.co.in, CIN : U26940CT2007PLCO20250



Registered A/D

# BHILAI JAYPEE CEMENT LIMITED

Date: 21.09.2017

BJCL/ENV/ESR/01/2016-17

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

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Ref: 1. Environmental Clearance Letter No. J-11011/29/2008-1A-II(I) dated 21<sup>st</sup> July 2009.  
2. DG Set consent Letter No. 5246 & 5248/TS/MPPCB/2013 dtd. 23.07.2013.

Dear Sir,

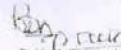
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Enclosures:

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

  
B.K. Agrawal

Jt. President (Technical)

Cc to:

1. Director, Regional Office  
Ministry of Environment & Forests,  
Regional Office, (WZ), Kendriya Paryavaran Bhawan ,  
Link Road -3, Ravishankar Nagar, Bhopal (M.P)-462016  
- For kind information pl.
2. Zonal Officer  
Central Pollution Control Board, 3<sup>rd</sup> Floor, Sahkar Bhavan,  
North T.T Nagar, Bhopal (M.P) -462003  
- For kind information pl.
3. Regional Officer, MP Pollution Control Board  
Rewa Road, Maihar  
Satna (MP) -485001  
- For kind information pl.



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, Basant Lok, Vasant Vihar, New Delhi -110 057 (India)  
Ph.: +91 (11) 26141540, 26147411 Fax: + 91 (11) 26145389, 26143591  
website: www.bicl.co.in. CIN : U26940CT2007PLCO20250



**FORM- V**

**ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR 2016-17**  
**M/S BHILAI JAYPEE CEMENT LIMITED, BABUPUR, SATNA (MP)**

**PART- A**

- (i) Name and address of the owner/ : **Bhilai Jaypee Cement Plant**  
Occupier of the Industry, operation : **Babupur – 485112, Satna (M.P.)**  
or process
- (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 : **28.09.2016**
- Submitted

**PART- B****WATER AND RAW MATERIAL CONSUMPTION****(i) Water Consumption**

<b>Water consumption- m<sup>3</sup>/day</b>		<b>Remarks</b>
Cooling: (Spraying)	<b>526.75</b>	<b>Water consumption in FY 2016-17 is less due to plant stoppage.( Kiln running 66.82 days only)</b>
Domestic	<b>208.02</b>	
Process	<b>Nil</b>	

<b>Name of Products</b>	<b>Water consumption per unit of Products</b>	
	<b>During the previous Financial Year (2015-16)</b>	<b>During the Current Financial Year (2016-17)</b>
1. Clinker	0.359 M <sup>3</sup> /MT	0.461 M <sup>3</sup> /MT

**(ii) Raw Material Consumption**

<b>Name of raw material consume</b>	<b>Name of products</b>	<b>Consumption of raw material Per unit of Products (MT)</b>	
		<b>During the previous Financial Year (2015-16)</b>	<b>During the Current Financial Year (2016-17)</b>
1. Limestone	<b>Clinker</b>	<b>1.483</b>	<b>1.455</b>
2. Additive (Iron ore/ Laterite/ High Gr. Laterite/ Bauxite)		<b>0.036</b>	<b>0.034</b>
3. Coal		<b>0.127</b>	<b>0.135</b>

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

<b>(i) Pollution</b>	<b>Quality of Pollutants Discharged</b>	<b>Concentration of Pollutants discharges</b>	<b>Percentage of variation from</b>
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	(Mass/day)	(mass/volume)	prescribed standards
(a) Colonial Waste Water	<b>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>		
(b) Industrial	<b>No waste water is generated in process hence Zero discharge is maintained</b>		
Stack emission	a) Kiln B .H - 0.1525 MT/Day b) Cooler ESP Stack - 0.1252 MT/day c) Coal Mill Bag House stack - 0.0312 MT/Day d) Limestone Crusher Bag filter - 0.0096MT/Day	18.08 mg/Nm <sup>3</sup>  21.8 mg/Nm <sup>3</sup>  18.66 mg/NM <sup>3</sup>  13.24 mg/Nm <sup>3</sup>	Within the permissible limit

**PART- D  
(HAZARDOUS WASTES)**

Hazardous Wastes	Total Quantity (MT) Disposed	
	During the previous financial year (2015-16)	During the current financial year (2016-17)
(a) From process	Used Oil : NIL Waste Oil : NIL	Used Oil : 3.39 Waste Oil : 1.98
(b) E-Waste	0.150 MT	NIL
(c) Used Batteries	0.08 MT	1.17 MT
(b) From pollution Control Facilities	Nil	Nil

**PART- E  
SOLID WASTES**

TOTAL QUANTITY (Ts)		
	During the Previous Financial Year (2015-16)	During the Current Financial Year (2016-17)
(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	24.99 MT	1. Ganesh Belting store
2.	Filter bags scrape	350 nos.	2. Yusuf Ali Satna
3.	Used tires	70 nos.	3. Yusuf Ali Satna
<b>Used Batteries:</b>			
	Batteries	26 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 40 mg/Nm<sup>3</sup> 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.
- Conservation of Energy
  - (i) Following steps were taken in connection with conservation of energy:-
  - Replaced 10 Nos. 400 Watt HPSV fittings street lights with 36 watt LED street lights. The saving of power consumption was 0.03 Lacs Kwh and Rs. 0.18 Lacs per annum.
  - Replacement of 120 No 36 watt Fluorescent tube lights with 19 watt LED tube light .The saving of power consumption was 0.056 lacs KWH and Rs 0.35 Lacs per annum.
  - Replacement of 132 No 36 watt Fluorescent tube light fitting with 19 watt LED tube light fittings. The saving of power consumption was 0.026 lacs KWH and Rs 0.16 lacs per annum.
  - Replacement of 50 No 70 watt HPSV lamps with 50 No 20 watt LED lamps. The saving of power consumption was 0.004 lacs KWH and Rs 0.021 lacs per annum.
  - Technology absorption, adoption and innovation
  - Initiatives were taken to implement innovative ideas (generated in Quality Circles and Interactive forums) and benefits derives from it are as follows.
  - Modification carried out in Reclaimer slow travel drive. Replacement of gear coupling with Jaw coupling.
  - Rail installed in Impactor discharge chute to prevent foreign material damaging the belt conveyor
  - Modification carried out in crusher auto sampler to improve output efficiency.
  - Modification of de dusting line in clinker loading spout.
  - Modification of heating system for Kiln Girth gear system.
  - Arresting of false Air in Raw mill circuit to reduce false air ingress from 16 % to 14 %.
  - Modification in source of UPS supply for X Ray Analyzer.
  - Commissioning of alternate arrangement for clinker loading in case of PLC failure.

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. AFR used in Cement Kiln: Tire dust/cuts- 216 MT
2. RDF: 08 MT

**Prepared By**

**Dated: 18.09.2017**

**For M/s Bhilai Jaypee Cement Ltd.**

**(Authorized Signatory)**  
**B.K Agrawal**  
**Joint President (Tech)**

**FORM- V****ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR 2016-17**

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

**ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE**  
**31st MARCH 2017**

**PART – A**

(I)	Name & Address of the Owner / Occupier of the Industry Operation or Process	<b>Bhilai Jaypee Cement Limited</b> <b>Babupur – 485112, Satna (M.P.)</b>
(II)	Industry Category	Red Category and Large industry
(III)	Production Capacity	5 x 1500 KVA (DG Set)
(IV)	Year of Establishment	5 <sup>th</sup> August 2010
(V)	Date of last Environmental Statement Submitted	<b>28.09.2016</b>

**PART- B****WATER AND RAW MATERIAL CONSUMPTION**

(i) Water consumption - m<sup>3</sup>/day

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

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

Process : **Nil**

<b>Name of Products</b>	<b>Water consumption per unit of Products</b>	
	<b>During the previous Financial Year (2015-16)</b>	<b>During the Current Financial Year (2016-17)</b>
1. Electricity	Nil	Nil

(ii) **Raw Material Consumption**

<b>Name of raw material consume</b>	<b>Name of products</b>	<b>Consumption of raw material / Unit of Product</b>	
		<b>During the previous Financial Year (2015-16)</b>	<b>During the Current Financial Year (2016-17)</b>

4. Diesel (HSD)	Electricity	0.562 Ltr/KWH	0.865 Ltr/KWH
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#### 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) 57.19 $\mu\text{g}/\text{m}^3$ 52.25 $\mu\text{g}/\text{m}^3$ 57.01 $\mu\text{g}/\text{m}^3$ 55.63 $\mu\text{g}/\text{m}^3$	Ambient air quality is within the permissible limits

#### PART- D HAZARDOUS WASTES

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year (2015-16)	During the current financial year (2016-17)
(a) From process	NIL	Used Oil (5.1) – 420
(b) From pollution Control Facilities	NIL	NIL

#### PART- E SOLID WASTES

TOTAL QUANTITY (Ts)		
	During the previous Financial Year (2015-16)	During the Current Financial Year (2016-17)
(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**

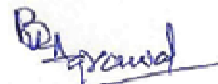
Any other particulates in respect of environmental protection and abatement of pollution.

**DG Set is installed in the Cement Plant Premises**

**Prepared By**

**Dated: 18.09.2017**

**For M/S Bhilai Jaypee Cement Ltd.**



**(Authorized signatory)**

**B.K Agrawal  
Joint President (Tech)**

**FORM- V****ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR 2016-17****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/ : **Ispat Limestone Quarry (ML-I)**  
 Occupier of the Industry, operation : **Unit: BHILAI JAYPEE CEMENT LTD.**  
 or process : **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 : **28.09.2016**  
 Submitted

**PART- B****WATER AND RAW MATERIAL CONSUMPTION**

- (iii) Water consumption - m<sup>3</sup>/day

- Cooling: (Spraying) : **54.42 (Mine pit water)**
- Domestic : **19.17**
- Process : **Nil**

Name of Products	Water consumption per unit of Products M <sup>3</sup> /Ton	
	During the previous Financial Year (2015-16)	During the Current Financial Year (2016-17)
1. Limestone	0.886 M <sup>3</sup> / MT of LS	0.089 M <sup>3</sup> / 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 (2015-16)	During the Current Financial Year (2016-17)
5. Diesel (HSD)	<b>Limestone</b>	0.707 Lit /MT of Limestone	1.089 Lit /MT of Limestone
6. Slurry Explosive( 83mm)		0.239 Kg /Tones of Limestone	0.038 Kg /Tones of Limestone
7. Colum charge (83mm)		0.159 Kg /Tones of Limestone	0.055 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.)  <b>PM<sub>2.5</sub></b>  <b>PM<sub>10</sub></b>	<b>Annual average data</b> <b>Direction    Avg. Result</b> East - 23.37 µg/M <sup>3</sup> West - 23.78 µg/M <sup>3</sup> North - 24.41 µg/M <sup>3</sup> South - 23.24 µg/M <sup>3</sup>  East - 57.19 µg/M <sup>3</sup> West - 57.25 µg/M <sup>3</sup> North - 57.11 µg/M <sup>3</sup> South - 55.63 µg/M <sup>3</sup>	Ambient air quality is within the permissible limits

**PART- D**  
**HAZARDOUS WASTES**

Hazardous Wastes	Total Quantity (MT)	
	During the previous financial year (2015-16)	During the current financial year (2016-17)
(a) From process	0.00 (ML-I & ML-II)	1.05 (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 (2015-16)	During the Current Financial Year (2016-17)
(a) From Process- Over Burden from mine	62991.0	11931.167
(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.

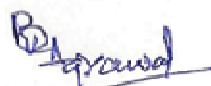
#### **PART- I**

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

NIL

**Prepared By**  
**Dated: 18.9.2017**

**For M/S Bhilai Jaypee Cement Ltd.**



**(Authorized signatory)**  
**B.K Agrawal**  
**Joint President (Tech)**

**FORM- V****ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR 2016-17****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/ : **Ispat Limestone Quarry (ML-II)**  
Occupier of the Industry, operation : **Unit: BHILAI JAYPEE CEMENT LTD.**  
or process : **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: **28.09.2016**  
Submitted

**PART- B****WATER AND RAW MATERIAL CONSUMPTION**

- (iv) Water consumption - m<sup>3</sup> /day

Cooling: (Spraying) : **34.01 (Mine pit water)**

Domestic : **19.83**

Process : **Nil**

Name of Products	Water consumption per unit of Products M <sup>3</sup> /Ton		Remarks
	During the Previous Financial Year (2015-16)	During the Current Financial Year (2016-17)	
1. Limestone	0.167 M <sup>3</sup> / MT of LS	0.054 M <sup>3</sup> / MT of LS	Mine Production is very less due to Kiln stoppage.

**Raw Material Consumption**

Name of raw material consume	Name of products	Consumption of raw material / Unit of Product	
		During the previous Financial Year (2015-16)	During the Current Financial Year (2016-17)
8. Diesel (HSD)	<b>Limestone</b>	0.707 Lit /MT of Limestone	1.089 Lit /MT of Limestone
9. Slurry Explosive(83mm)		0.239 Kg /Tones of Limestone	0.038 Kg /Tones of Limestone
10. Colum charge (83mm)		0.159 Kg /Tones of Limestone	0.055 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)	Annual Average data <b>Direction      Avg. Result</b> East - 23.37 µg/M <sup>3</sup> West - 23.78 µg/M <sup>3</sup> North - 24.41 µg/M <sup>3</sup> South - 23.24 µg/M <sup>3</sup>  PM <sub>2.5</sub>  PM <sub>10</sub>  East - 57.19 µg/M <sup>3</sup> West - 57.25 µg/M <sup>3</sup> North - 57.11 µg/M <sup>3</sup> South - 55.63 µg/M <sup>3</sup>	Ambient air quality is within the permissible limits

**PART- D****HAZARDOUS WASTES**

Hazardous Wastes	Total Quantity (MT)	
	During the previous financial year (2015-16)	During the current financial year (2016-17)
(a) From process	NIL	1.05 (For Both Mine)
(b) From pollution Control Facilities	N.A.	N.A.

**PART- E****SOLID WASTES**

TOTAL QUANTITY (Ts)		
	During the previous Financial Year (2015-16)	During the Current Financial Year (2016-17)
(a) From Process- Over Burden from mine	119482	12966.14
(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 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.

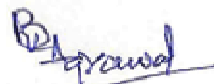
Ground vibration study was done by CIMFR, Dhanbad for optimized of blasting.

#### **PART- I**

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

**Prepared By**  
**Dated: 18.09.2017**

**For M/S Bhilai Jaypee Cement Ltd.**



**(Authorized signatory)**  
**B.K Agrawal**  
**Joint President (Tech)**