Registered A/D

BJCL/ENV/ESR/2015-16/01

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 2015-16

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

Dear Sir,

Please find the following enclosed **Environment Statement Report (Form-V)** for the year **2015-16** 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

Deraco B.K. Agrawal Jt. President (Technical)

BHILAI JAYPEE

Date: 28.09.2016

Cc to:

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

- Zonal Officer Central Pollution Control Board, 3rd Floor, Sahkar Bhavan, North T.T Nagar, Bhopal (M.P) – 462003
- Regional Officer, MP Pollution Control Board House No. 318, Gali No.-5, Dhwari Satna(MP) – 485001

- For kind information pl.

- For kind information pl.

- 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, 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 : U26940CT2007PLCC020250 A JV of SAIL & JAIPRAKASH ASSOCIATES LIMITED





ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR 2015-16 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	:	1.09 MTPA (Clinker)
			0.6 MTPA (Cement)
(iv)	Year of Establishment	:	January, 2010
(v)	Date of Last Environment Statement	:	10.09.2015
	Submitted		

PART- B WATER AND RAW MATERIAL CONSUMPTION

(i) Water Consumption		
Water consumption- m ³ /day		Remarks
Cooling: (Spraying)	429.07	Water consumption in FY
Domestic	260.19	2015-16 is less due to plant
Process	Nil	stoppage

Name of Products	Water consumption	Water consumption per unit of Products		
	During the previous Financial Year (2014-15)	During the Current Financial Year (2015-16)		
1. Clinker	0.290 M ³ /MT	0.359 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 Current Financial Year (2014-15)	During the Current Financial Year (2015-16)	
1. Limestone 2. Additive (Iron	Clinker	1.48	1.483	
ore/Laterite/ High Gr. Laterite/ Bauxite)		0.039	0.036	

3. C	oal	0.125	0.127
(Parameter	•••	ART- C nvironment/ unit of output. ed)	
(i) Pollution	Quality of Pollutants Discharged (Mass/day)	Concentration of Pollutants discharges (mass/volume)	Percentage of 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 generat	ed in process hence Zero disc	charge is maintained
Stack emission	a) Kiln B .H - 0.1787 MT/Day b) Cooler ESP Stack - 0.1061 MT/day	20.75 mg/Nm3 17.25 mg/Nm3	Within the permissible limit
	c) Coal Mill Bag House stack - 0.025 MT/Day	21.06 mg/NM3	
	d) Limestone Crusher Bag filter · 0.0133 MT/Day	19.53 mg/Nm3	

PART- D (HAZARDOUS WASTES)

Hazardous Wastes	Total Quantity (MT) Disposed		
	During the current financial year (2014-15)	During the current financial year (2015-16)	
(a) From process	Used Oil : 1.63 Waste Oil : 2.50	Used Oil : NIL Waste Oil : NIL	
(b) E-Waste	Nil	0.150 MT	
(c) Used Batteries	9.0 MT	0.08 MT	
(b) From pollution Control Facilities	Nil	Nil	

	PART- E SOLID WASTES	
	TOTAL QUANTITY (Ts)	
	During the Current Financial Year (2014-15)	During the Current Financial Year (2015-16)
(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:

S.No.	Particulars	Quantity	Disposal (Sold to authorized recycler)		
1.	Belt conveyor Scrape	21.22 MT	1. Ganesh Belting store		
2.	Filter bags scrape	685 nos.	2. Yusuf Ali Satna		
3.	Used tires	78 nos.	3. Yusuf Ali Satna		
Used B	Used Batteries:				
	Batteries	02 Nos	M/s Raj Industries, Rewa (M.P.)		

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 tyres, rejected rubber belts, filter bags, are generated during cement manufacturing process & these solid wastes are being sold to authorized parties

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/Nm³ 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 of raw material & 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.

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

- > Blaster has been installed in Coal Mill due to which Coal Mill stoppage reduced.
- > Retrofitting of roots blower pulley to conserve electricity.
- Installation of Slip Power Recovery System (SPRS) in the Pre-heater fans in Kiln for energy saving.
- Damper blades to be set right so that at 100% opening of damper, there is no pressure loss, it helps saving 35 KW per hour.
- Current transducer installed for belt conveyor to stop idle running to conserve electricity.

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.
- 9. Extended coal storage shed.
- 10. Constructed Laterite shed to store laterite.
- 11. Installed two nos of CAAQMS.
- 12. Installed CEMS at main Stack at Kiln and RM Bag house



PART- I

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

1. Permission received for use of AFR in Cement Kiln.

Prepared By Dated: 25.09.2016

For M/s Bhilai Jaypee Cement Ltd.

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

ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR 2015-16

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

ENVIRONMENTAL STATEMENT FOR THE FINANCIALYEAR ENDING THE 31st MARCH 2016

	PART – A	
(I)	Name & Address of the	Bhilai Jaypee Cement Limited
	Owner / Occupier of the Industry	Babupur – 485112, Satna (M.P.)
	Operation or Process	
(II)	Industry Category	Red Category and Large industry
(III)	Production Capacity	5 x 1500 KVA (DG Set)
(IV)	Year of Establishment	5 th August 2010
(V)	Date of last Environmental Statement	10.09.2015
	Submitted	

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 (2014-15)	During the Current Financial Year (2015-16)
1. Electricity	Nil	Nil

(ii) Raw Material Consumption

Name of raw material	Name of	Consumption of raw material / Unit of Product

consume	products	During the Current Financial Year (2014-15)	During the Current Financial Year (2015-16)
4. Diesel (HSD)	Electricity	0.454 Ltr/KWH	0.562 Ltr/KWH

PART- C

Pollution discharges to environment/ unit of output.

(Parameter a	as specified in the consent issued	I)		
(i)	Quality of PollutantsConcentration ofPercentag			
Pollution	Discharged	Pollutants discharges	variation from	
	(Mass/day)	(mass/volume)	prescribed standards	
(a)				
Colonial				
Waste	Nil			
Water				
(b)	Nil			
Industrial				
Air (AAQM)		Annual Average data (PM-10)		
East :	-	65.84 μg/m ³	Ambient air quality is	
West :		64.62 µg/m ³	within the permissible	
North :	57.56 µg/m ³ limits			
South :		56.43 µg/m ³		

PART- D HAZARDOUS WASTES

Hazardous Wastes	Total Quantity (Kg)		
	During the current financial year (2014-15)	During the current financial year (2015-16)	
(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 Current FinancialDuring the Current FinancialYear (2014-15)Year (2015-16)		
(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: 25.09.2016

For M/S Bhilai Jaypee Cement Ltd.

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

ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR 2015-16

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	:	10.09.2015

PART- B WATER AND RAW MATERIAL CONSUMPTION

(iii) Water consumption - m³/day

Cooling: (Spraying)	:	45.41 (Mine pit water)
Domestic	:	19.17
Process	:	Nil

Name of Products	Water consumption per unit of Products M ³ /Ton		
	During the Current Financial Year (2014-15)	During the Current Financial Year (2015-16)	
1. Limestone	0.049 M ³ / MT of LS	0.886 M ³ / MT of LS	

Raw Material Consumption

Name of raw material	Name of	Consumption of raw material / Unit of Product		
consume	products	During the Current	During the Current	
	-	Financial Year (2014-15)	Financial Year (2015-16)	
5. Diesel (HSD)		0.66 Lit /MT of Limestone	0.707 Lit /MT of Limestone	
6. Explosive (Slury)	Limestone	0.062 Kg /Tones of	0.239 Kg /Tones of	
		Limestone	Limestone	

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	
Colonial Waste Water	Zero discharge is maintained			
(b) Industrial	Zero discharge is maintained			
Air (AAQM)	Ambient Air Quality (Annual Avg.)	Annual average data Direction Avg. Result East - 25.25 µg/M ³	Ambient air quality is within the permissible limits	
	PM _{2.5}	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		
	PM ₁₀	East - $60.75 \ \mu g/M^3$ West - $64.39 \ \mu g/M^3$ North - $69.95 \ \mu g/M^3$ South - $60.96 \ \mu g/M^3$		

PART- D HAZARDOUS WASTES

Hazardous Wastes	Total Quantity (MT)		
	During the current financial year (2014-15)	During the current financial year (2015-16)	
(a) From process	1.28 (ML-I & ML-II)	0.00 (ML-I & ML-II)	
(b) From pollution Control Facilities	N.A.	N.A.	

PART- E SOLID WASTES TOTAL QUANTITY (Ts)

	During the Current Financial Year (2014-15)	During the Current Financial Year (2015-16)
(a) From Process- Over Burden from mine	67871.8	62991.0
(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 8619 plant saplings in Mine and Colony area during financial year 2015-16.

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: 25.09.2016

Ltd.

For M/S Bhilai Jaypee Cement

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

ENVIRONMENTAL STATEMENT REPORT FOR THE YEAR 2015-16

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	t :	10.09.2015

PART- B WATER AND RAW MATERIAL CONSUMPTION

(iv) Water consumption - m³/day

Cooling: (Spraying)	:	45.40 (Mine pit water)
Domestic	:	19.17
Process	:	Nil

Name of Products	Water consumption per unit of Products M ³ /Ton		
	During the Current Financial	During the Current Financial	
	Year (2014-15)	Year (2015-16)	
1. Limestone	0.021 M ³ / MT of LS	0.167 M ³ / MT of LS	

Raw Material Consumption

Name of raw material	Name of	Consumption of raw material / Unit of Product	
consume	products	During the Current	During the Current
		Financial Year (2014-15)	Financial Year (2015-16)
7. Diesel (HSD)		0.66 Lit /MT of Limestone	0.707 Lit /MT of Limestone
8. Explosive (Slury)	Limestone	0.062 Kg /Tones of	0.239 Kg /Tones of
		Limestone	Limestone

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	Zero discharge is maintained		
(b) Industrial	70	ro discharge is maintained	
Air (AAQM)	Ambient Air Quality (Annual average data)	Annual Average data Direction Avg. Result East - 25.25 µg/M ³	Ambient air quality is within the permissible limits
	PM _{2.5}	West - 29.52 μ g/M ³ North - 33.08 μ g/M ³ South - 23.64 μ g/M ³	permissible mints
	PM ₁₀	East - 60.75 µg/M ³ West - 64.39 µg/M ³ North - 69.95 µg/M ³	

PART- D HAZARDOUS WASTES

Hazardous Wastes	Total Quantity (MT)		
	During the current financial year (2014-15)	During the current financial year (2015-16)	
(a) From process	1.28	Nil	
(b) From pollution Control Facilities	N.A.	N.A.	

PART- E SOLID WASTES

TOTAL QUANTITY (Ts)		
	During the Current Financial Year (2014-15)	During the Current Financial Year (2015-16)
(a) From Process- Over		
Burden from mine	114896.0	119482
(b) From Pollution	Nil	Nil
Control facilities		
(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.
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- 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 8619 plant saplings in Mine and Colony area during financial year 2015-16.

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: 25.09.2016

For M/S Bhilai Jaypee Cement Ltd.

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