JINDAL

JINDAL SAW LTD.

JSL/ENV/F-12/GPCB/2015-16 **Date: 30.07.2016**

To,
The Member Secretary
Gujarat Pollution Control Board
Paryavaran Bhavan
Sector – 10 A
Gandhinagar – 382010

Sub: -Environmental Statement (Form-V) for Mini Blast Furnace-1 (GPCB: 18037) of Jindal Saw Limited for the year 2015-2016.

Ref: *-Blast Furnace Plant-1 (PCB ID-18037, Consent Order No.AWH-68239 issued on dated 20.02.2015).*

Dear Sir,

This has reference to the above, we are submitting herewith **Environmental Statement (Form-V)** for **Blast Furnace Plant** of **Jindal Saw Limited**, Survey No. 294/1, 324, 286, 287, 336/1, 294/2, 293, 325/1 & 288/1, Village- Samaghogha, Taluka- Mundra, District-Kutch (Gujarat) for the period ***April, 2015 to March-2016.***

Kindly acknowledge receipt of the same.

Thanking you.

Yours faithfully,
For **JINDAL SAW LTD.**

A . K .Pandey
AGM- Environment

Encls: As above

CC:
Regional Officer
Gujarat Pollution Control Board
Room No. 215-217 Administrative office Building
Second Floor, Kandla Port Trust, Sector-8
Gandhidham, Kutch
Gujarat- 370201

From- V

{See Rule14}

Environmental Statement for the period April 2015 to March 2016

Blast Furnace (PCB ID- 18037)

Part-A

(i) Name and address of the owner/occupier of the industry operation and process

Mr. H. S. Chaudhary
JINDAL SAW LIMITED
A-1, UPSIDC Industrial Area
Nandgaon Road, Kosi Kalan
District: Mathura-281403 (U.P.)

(ii) Industry category primary-(STC code) Secondary-(SIC Code) : **Red**

(iii) Production Capacity - **300000 TPA**

(iv) Year of Establishment : **2005**

(v) Date of last Environment statement submitted: **25.08.2015**

Part- B

Water and Raw Material consumption

(i) Water consumption:1780.78 **m^3/day**

Process – **NIL**

Cooling- 1177.78 **m^3/Day**

Domestic- 603.0 **m^3/Day**

Name of Products	Process Water Consumption per unit of product output	
	During the Previous Financial year	During the current financial year
Hot Metal / Pig Iron	**2.32 KL/Ton**	**1.82 KL/Ton**

(ii) Raw material consumption-

Sr. No	Name of Raw Materials	Name of Products	Consumption of raw material per unit of output	
			During the previous financial year	During the current financial year
1	**Sinter**	**Hot Metal/ Pig Iron**	1.846	**1.581**
2	**Coke**		0.627	**0.594**
3	**Iron Ore**		0.176	**0.251**
4	**Quartzite**		0.070	**0.044**
5	**Dolomite**		0.024	**0.005**
6	**Lime stone**		0.002	**0.012**
7	**Manganese Ore**		0.023	**0.007**

Month wise raw material consumption and production detail is enclosed as ***Annexure-I***

- Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw material used.

Part – C

Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharge (Mass/Day)	Concentration of pollutants in discharges (Mass/Volume)	Percentage of variation from prescribed standards with reasons
(a) Water	No discharge of treated domestic wastewater, it is being reused for plant cooling, dust suppression & horticulture purposes.		**Results are well below the permissible limits**
(b) Air	Monitoring Results (Ambient Air, Stack Emission, Noise Level, and Water & Wastewater Quality) is enclosed as ***Annexure-II.***		**Results are well below the permissible limits**

Part – D

(As specified under [Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008)]

Hazardous Waste	Total Quantity (KL)	
	During the previous financial year.	During the current financial year.
(a) From Process	Not applicable	Not applicable
(b) From Pollution Control Facilities		
(c) Others Used / Spent Oil	**7.56 KL**	**16.170 KL**

Part – E

Solid waste

Solid waste	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
(a) From Process (BF Slag)	**65397 MT**	**80227 MT**
(b) From Pollution Control Facilities (Flue Dust)	**4464.231MT**	**7162.926 MT**
(c) (1) Quantity recycled or re-utilized within the unit	**Flue Dust – 4464.23 MT** **BF Slag - 28097 MT**	**Flue Dust – 7162.926 MT** **BF Slag 21625.893 MT**
(2) Sold	**BF Slag- 104459 MT**	**BF Slag- 82388 MT**
(3) Disposed	Nil	**Nil**

Note: Opening stock of BF Slag as on date-31.03.2015: **2161 MT** & Closing stock of BF Slag as on date-31.03.16: Nil.

From Process:-

- BF gas dust and Blast Furnace reject material 100% is being used as raw material of Sinter Plant.
- After installation of Dry Dedusting System generation of ETP sludge is Nil.
- BF Slag is generated from blast furnace and is being used in slag grinding plant and also sold to cement manufactures.
- BF Gas is generated from blast furnace and it is used as a fuel in deferent section of plant in place of LDO, HSD and LPG.

From Pollution Control:-

Dust collected from RMHS is being used as raw material in Sinter Plant.

Quantity recycled or reutilized within the unit

1. Blast furnace slag is being sold to the cement manufacturer and this slag is also being used in our slag grinding unit for in house use.
2. Dust collection from DDS plant is used 100% as raw material of Sinter Plant.

Part F

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

Dust generated from dry de-dusting system is being used as raw material in sinter plant.

Used Oil: - Used oil is being sold to authorized re-cyclers.

Part – G

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

1. **Water Conservation:** 100 % of plant generated waste water from different units being recycled / re used in process.
2. **Energy Saving:** We have installed the pulverized Coal injection system for energy saving as well as reduced the consumption of coke in BF and smooth operation of Blast Furnace.
3. **Air Pollution Control Facilities** – BF Gas is generated from blast furnace along with dust content. This fine dust is separated through dry de- dusting system in dry form and the same is being used 100% in sinter plant as raw material.

Part – H

Additional measures/ investment proposed for investment proposed for environment protection including abatement of pollution, prevention of pollution.

- Company has installed the Dry- Dedusting System (DDS) in place of wet venture scrubber system in which we get directly Dry Dust from BF plant which is being used (100%) in Sinter plant as a raw material and **saving the approx-130 to 140 m^3/day water consumption.**
- Company has installed online emission monitoring system for continuous measurement of particulate matter as per CPCB guideline.
- Company has also installed dry fogging system (water fog canon) at raw material yard to minimize the fugitive emissions during raw material handling.

Part-I

Any other particulars for improving the quality of the environment.

The followings factors which are directly responsible to maintain pollution levels through continual improvements:

- Certified with IMS (ISO 9001:2008, OHSAS 18001:2007 & ISO 14001:2004) from ***BUREAU VERITAS.***
- Regular environmental monitoring carried out for stack emission, ambient air quality and Noise level reports are submitted to Gujarat Pollution Control Board. All results are within the norms prescribed by the Gujarat Pollution Control Board.
- Periodic maintenance of all pollution control measures.

- Green belt has been developed by covering ***90 acres*** area within plant premises and planted more than ***1.65 lakhs*** saplings. The detail of plantations is enclosed as ***Annexure-III***.
- Regular housekeeping to reduce fugitive emissions.
- Regular water sprinkling is being carried out through water tanker for minimizing fugitive emission.
- CSR activities carried out in the surrounding area along with cost incurred during ***2015-2016*** is enclosed as ***Annexure –IV***

(Authorized Signatory)

Name: **V. Rajasekaran**
Designation: **Vice President**

Address: **JINDAL SAW LIMITED**
(IPU- Samaghogha)
Village: Samaghogha
Taluka: Mundra
Dist.: Kutch
Gujarat-370415

Annexure-1

Blast Furnace-1 (PCB ID: 18037)

Details of Production

PERIOD	HOT METAL
Apr-15	8839
May-15	20550
Jun-15	20820
Jul-15	20690
Aug-15	20353
Sep-15	20507
Oct-15	21150
Nov-15	19369
Dec-15	20108
Jan-16	21061
Feb-16	21557
Mar-16	21187
Total	**236191**

Detail of Raw Materials (MT)

Month	Iron Ore	Coke	Sinter	Dolomite	Quartzite	Manganese Ore	Lime Stone
Apr-15	1707	5855	16346	8	828	94	7
May-15	3499	12590	37360	0	1410	141	0
Jun-15	2629	12844	37600	0	1259	162	0
Jul-15	1549	12913	39028	0	943	293	13
Aug-15	1258	12760	37702	0	618	238	91
Sep-15	3030	12401	37454	0	605	270	4
Oct-15	2366	11913	39220	0	926	292	3
Nov-15	4087	11209	27627	86	517	8	353
Dec-15	10453	11890	22035	390	717	14	818
Jan-16	10342	12914	23073	337	668	45	804
Feb-16	9969	11649	23377	337	721	24	599
Mar-16	8373	11477	32630	0	1147	114	257
Total	**59262**	**140415**	**373452**	**1158**	**10359**	**1695**	**2949**

Annexure-1

Detail of Water Consumption (KL)

Month	Process Cooling	Domestic
APR.2015	27177	17216
MAY.2015	35552	16974
JUN.2015	35398	19251
JUL.2015	35743	19225
AUG.2015	35665	17628
SEP.2015	36916	17022
OCT.2015	37434	21517
NOV.2015	36218	19142
DEC.2015	34824	17717
JAN.2016	36374	19025
FEB.2016	35760	16943
MAR.2016	42830	18438
Total	**429891**	**220098**

Annexure-II

National Ambient Air Quality Monitoring Results (April-15 to March-16)

Month	Name of Locations														
	Main Gate (NAAQMS-1)					Sinter Plant-1 (NAAQMS-2)					Nr. Workshop Spiral -II (NAAQMS-3)				
	PM 10	PM2.5	SO_2	NO_2	CO**	PM 10	PM2.5	SO_2	NO_2	CO**	PM 10	PM2.5	SO_2	NO_2	CO**
	Average Values (Unit:- µg/m^3)														
Apr-15	64.7	41.2	3.7	21.1	BDL	69.2	47.2	4.1	20.7	BDL	56.2	35.2	3.8	18.2	BDL
May-15	64.0	18.5	4.8	20.5		68.5	16.5	4.7	20.0		51.5	15.5	3.7	18.2	
Jun-15	56.0	20.0	4.1	19.6		67.5	21.5	4.9	18.7		44.5	15.5	3.1	17.4	
Jul-15	41.0	16.5	3.2	16.2		49.0	23.0	3.9	16.4		33.5	17.0	2.5	13.9	
Aug-15	49.9	21.3	4.1	18.3		55.5	24.5	4.5	16.7		38.1	17.3	2.7	14.8	
Sep-15	47.3	20.9	3.3	17.1		49.3	23.2	3.3	15.3		32.6	14.1	2.0	14.5	
Oct-15	64.7	41.2	3.7	21.1		69.2	47.2	4.1	20.7		56.2	35.2	3.8	18.2	
Nov-15	64.0	18.5	4.8	20.5		68.5	16.5	4.7	20.0		51.5	15.5	3.7	18.2	
Dec-15	56.0	20.0	4.1	19.6		67.5	21.5	4.9	18.7		44.5	15.5	3.1	17.4	
Jan-16	41.0	16.5	3.2	16.2		49.0	23.0	3.9	16.4		33.5	17.0	2.5	13.9	
Feb-16	49.9	21.3	4.1	18.3		55.5	24.5	4.5	16.7		38.1	17.3	2.7	14.8	
Mar-16	47.3	20.9	3.3	17.1		49.3	23.2	3.3	15.3		32.6	14.1	2.0	14.5	
Min	**41.0**	**16.5**	**3.2**	**16.2**	BDL	**49.0**	**16.5**	**3.3**	**15.3**	BDL	**32.6**	**14.1**	**2.0**	**13.9**	BDL
Max	**64.7**	**41.2**	**4.8**	**21.1**		**69.2**	**47.2**	**4.9**	**20.7**		**56.2**	**35.2**	**3.8**	**18.2**	
Avg.	**53.8**	**23.1**	**3.9**	**18.8**		**59.8**	**26.0**	**4.2**	**18.0**		**42.7**	**19.1**	**3.0**	**16.2**	

BDL= Below detectable limit

Ambient Air Quality Monitoring Results (April-15 to March-16)

Name of Locations

Month	Old Colony (AAQ-1)						Nr. Rain Water Harvesting Pond (AAQ-2)						LPG Yard (AAQ-3)						Between Sinter & Spiral (AAQ-4)				
	Unit- µg/m3																						
	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**
Apr-15	46.0	27.0	3.8	14.4	BDL	ND	41.0	24.0	4.5	17.3	BDL	ND	56.0	35.0	3.1	12.2	BDL	ND	49.0	31.0	3.9	11.4	BDL
May-15	39.0	16.0	2.9	13.5			48.0	19.0	3.7	16.4			41.0	18.0	4.1	14.1			43.0	14.0	4.8	12.3	
Jun-15	28.0	11.0	1.8	12.4			56.0	22.0	3.2	15.7			48	20.0	3.5	13.6			51	18	4.3	11.8	
Jul-15	32.0	16.0	1.2	13.8			64.0	26.0	2.5	16.4			53.0	23.0	4.4	14.5			59.0	21.0	3.6	12.7	
Aug-15	37.0	11.0	1.7	12.6			60.0	23.0	1.9	15.2			57.0	26.0	3.8	13.7			52.0	18.0	2.9	11.8	
Sep-15	28.0	13.0	1.1	9.7			49.0	21.0	2.3	13.1			51.0	24.0	3.1	12.6			47.0	16.0	1.8	10.7	
Oct-15	25.0	10.0	1.6	8.6			34.0	14.0	2.9	11.9			39.0	20.0	2.7	10.5			43.0	13.0	2.4	9.5	
Nov-15	29.0	13.0	1.2	7.5			38.0	16.0	3.5	10.8			44.0	23.0	1.2	9.4			48.0	15.0	3.1	8.9	
Dec-15	33.0	15.0	1.8	6.9			43.0	19.0	2.6	11.5			39	21.0	3.5	10.6			36	13	2.8	9.5	
Jan-16	24.0	11.0	2.3	7.6			48.0	23.0	3.5	12.6			43.0	18.0	4.2	11.5			31.0	15.0	3.7	10.4	
Feb-16	29.0	13.0	1.8	8.3			43.0	19.0	2.6	11.5			48.0	22.0	3.4	10.3			36.0	17.0	3.1	9.5	
Mar-16	24.0	11.0	1.2	7.2			37.0	15.0	2.2	8.4			48.0	20.0	2.9	9.2			40.0	19.0	2.5	8.4	
Min.	**24.0**	**10.0**	**1.1**	**6.9**	BDL	ND	**34.0**	**14.0**	**1.9**	**8.4**	BDL	ND	**39.0**	**18.0**	**1.2**	**9.2**	BDL	ND	**31.0**	**13.0**	**1.8**	**8.4**	BDL
Max.	**46.0**	**27.0**	**3.8**	**14.4**			**64.0**	**26.0**	**4.5**	**17.3**			**57.0**	**35.0**	**4.4**	**14.5**			**59.0**	**31.0**	**4.8**	**12.7**	
Avg.	**31.2**	**13.9**	**1.9**	**10.2**			**46.8**	**20.1**	**3.0**	**13.4**			**47.3**	**22.5**	**3.3**	**11.9**			**44.6**	**17.5**	**3.2**	**10.6**	

Month	Labour Colony (AAQ-5)						New Colony (AAQ-6)						VIP Guest House (AAQ-7)						Weigh Bridge No.-1 (AAQ-8)				
	Unit-µg/m3																						
	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**
Apr-15	65.0	49.0	3.6	11.4	BDL	ND	61.0	44.0	12.2	10.2	BDL	ND	67.0	40.0	2.9	8.7	BDL	ND	71.0	48.0	2.1	8.5	BDL
May-15	49.0	12.0	3.1	12.3			55.0	18.0	3.9	11.5			52.0	11.0	3.1	9.3			59.0	15.0	2.4	10.5	
Jun-15	40.0	14.0	2.6	11.1			44.0	12.0	2.8	10.6			37.0	16.0	2.0	9.9			64.0	24.0	2.8	12.8	
Jul-15	45.0	19.0	2.1	13.4			50.0	17.0	3.3	11.6			42.0	24.0	2.9	3.5			68.0	29.0	4.8	13.9	
Aug-15	49	16	2.8	12.1			42	13.0	4.1	10.6			46.0	22.0	2.2	9.5			63.0	27.0	5.3	14.2	
Sep-15	42	19	3.4	11.2			54	27	3.9	10.1			38	15	3.8	11.9			60	29	4.2	13.8	
Oct-15	45.0	16.0	3.9	10.1			41.0	23.0	2.1	9.1			35.0	21.0	3.3	12.3			38.0	18.0	4.9	14.4	
Nov-15	40.0	19.0	4.8	9.7			35.0	26.0	2.9	8.3			31.0	24.0	3.7	11.2			42.0	21.0	5.5	13.2	
Dec-15	46.0	23.0	4.1	10.7			30.0	20.0	2.2	9.1			40.0	18.0	2.1	12.6			48.0	24.0	4.9	14.7	
Jan-16	40.0	19.0	5.2	11.8			35.0	22.0	3.4	10.2			33.0	14.0	4.2	13.7			54.0	20.0	6.1	15.8	
Feb-16	44	21	4.5	10.9			31	18.0	2.8	11.4			37.0	16.0	3.5	14.5			50.0	24.0	7.4	16.9	
Mar-16	39	18	3.8	9.8			35	16	2.4	10.3			42	21	2.8	13.4			55	22	8.5	15.8	
Min.	**39.0**	**12.0**	**2.1**	**9.7**	BDL	ND	**30.0**	**12.0**	**2.1**	**8.3**	BDL	ND	**31.0**	**11.0**	**2.0**	**3.5**	BDL	ND	**38.0**	**15.0**	**2.1**	**8.5**	BDL
Max.	**65.0**	**49.0**	**5.2**	**13.4**			**61.0**	**44.0**	**12.2**	**11.6**			**67.0**	**40.0**	**4.2**	**14.5**			**71.0**	**48.0**	**8.5**	**16.9**	
Avg.	**45.3**	**20.4**	**3.7**	**11.2**			**42.8**	**21.3**	**3.8**	**10.3**			**41.7**	**20.2**	**3.0**	**10.9**			**56.0**	**25.1**	**4.9**	**13.7**	

BDL= Below Detectable Limit

ND= Not Detectable

FUGITIVE EMISSION RESULTS (APRIL-2015 TO March-16)

Months	Name of Locations														
	RMH Junction House (A-1)					RMH Stock House (A-2)					Sinter RMH Yard (A-3)				
	Unit- µg/m3														
	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*
Apr-15	1384	6	29	BDL	ND	1987	6	30	BDL	ND	2234	7	27	BDL	ND
May-15	972	7	27			1497	6	28			1974	8	25		
Jun-15	1057	8	26			1564	8	28			1813	9	24		
Jul-15	1341	9.5	26.3			1720	8.9	27.6			2104	10.3	25.1		
Aug-15	1420	10	27			1922	10	29			2319	12	27		
Sep-15	1597	12	26			2109	11	27			1915	13	26		
Oct-15	1263	12.6	27.9			1479	11.8	28.5			1135	13.7	26.7		
Nov-15	1121	11.5	26.8			1302	10.7	27.4			1024	12.6	25.6		
Dec-15	1328	12.7	25.6			1211	11.9	26.3			1154	13.8	24.7		
Jan-16	1482	13.8	26.7			1310	12.7	27.2			1246	14.9	25.8		
Feb-16	1381	12.9	25.8			1243	11.8	26.3			1108	13.7	24.9		
Mar-16	1457	13.8	26.7			1534	12.7	27.2			1211	14.6	25.8		
Min	**972**	**6**	**26**	BDL	ND	**1211**	**6**	**26**	BDL	ND	**1024**	**7**	**24**	BDL	ND
Max	**1597**	**14**	**29**			**2109**	**13**	**30**			**2319**	**15**	**27**		
Avg.	**1317**	**11**	**27**			**1573**	**10**	**28**			**1603**	**12**	**26**		

Months	Name of Locations														
	Sinter 2 Ground Hopper (A-4)					DISP CCM Area (A-5)					Sinter-1 Main to PMD (A-6)				
	Unit- µg/m3														
	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*
Apr-15	1241	7	26	BDL	ND	915	7	14	BDL	ND	1428	6	22	BDL	ND
May-15	619	8	24			791	9	32			1428	8	24		
Jun-15	789	7	23			597	10	33			1676	9	25		
Jul-15	931	8	24			668	11	31			1896	11	28		
Aug-15	1013	9	24			712	12	33			2015	11	29		
Sep-15	1234	9	23			623	13	31			2254	10	28		
Oct-15	732	10.3	24.2			516	14.4	31.5			924	11.1	29.4		
Nov-15	617	9.2	23.1			420	13.1	30.4			807	10.5	28.3		
Dec-15	764	10.5	21.8			512	14.6	29.1			992	11.2	27.2		
Jan-16	855	11.6	22.9			608	15.7	28.4			1081	12.3	26.1		
Feb-16	746	10.7	21.6			513	14.8	27.5			950	11.4	25.2		
Mar-16	920	11.6	22.5			619	15.7	28.4			1347	12.3	26.1		
Min	**617**	**7**	**22**	BDL	ND	**420**	**7**	**14**	BDL	ND	**807**	**6**	**22**	BDL	ND
Max	**1241**	**12**	**26**			**915**	**16**	**33**			**2254**	**12**	**29**		
Avg.	**872**	**9**	**23**			**625**	**13**	**29**			**1400**	**10**	**27**		

BDL= Below Detectable Limit
ND= Not Detectable

STACK MONITORING RESULTS WITH RESPECT TO BLAST FURNACE-I (APRIL, 2015 to MARCH, 2016)

Month	Stack attached to Boiler-I			Stack attached to Boiler-II			Stack attached to Dedusting System			Stack attached to Stove		
	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx
	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3
Apr-15	4.0	ND	6.1	6.0	ND	2.1	28.0	ND		2.0	ND	1.4
May-15	5.0	ND	6.7	7.0	ND	3.8	28.0			3.0		1.9
Jun-15	7.0	3.2	6.2	9.0	4.5	8.3	23.0			2.0		ND
Jul-15	8.0	4.3	7.4	11.0	4.8	8.9	34.0			3.0		
Aug-15	10.0	3.6	8.4	7.0	4.1	9.2	25.0			2.0		
Sep-15	8.0	ND	ND	11.0	ND	ND	18.0			3.0		
Oct-15	10.0	ND		7.0	ND		14.0	ND		2.0	ND	
Nov-15	8.0			6.0			11.0			3.0		
Dec-15	10.0			11.0			3.0			2.0		
Jan-16	7.0			9.0			4.0			3.0		
Feb-16	9.0			10.0			5.0			2.0		
Mar-16	13.0			15.0			3.0			3.0		
Min.	**4.0**	**3.2**	**6.1**	**6.0**	**4.1**	**2.1**	**3.0**	**0.0**	**0.0**	**2.0**	**0.0**	**1.4**
Max.	**13.0**	**4.3**	**8.4**	**15.0**	**4.8**	**9.2**	**34.0**	**0.0**	**0.0**	**3.0**	**0.0**	**1.9**
Avg.	**8.3**	**3.7**	**7.0**	**9.1**	**4.5**	**6.5**	**16.3**	**#DIV/0!**	**#DIV/0!**	**2.5**	**#DIV/0!**	**1.7**

Month	Stack attached to 6000 KVA DG			Stack attached to 3240 KVA DG			Stack attached to 3240 KVA DG			Stack attached to 1180 KVA DG		
	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx
	mg/Nm^3	PPM	PPM	mg/Nm^3	PPM	PPM	mg/Nm^3	PPM	PPM	mg/Nm^3	PPM	PPM
May-15	61	30	19	48	24.7	23.4	...			57	22.2	21.7
Jun-15	57	39	26	43	31	24	49	33	23	...		
Jul-15	...			48	25.9	19.5	54	24.6	20.3			
Aug-15	52	29.7	20.9	42	24.8	18.4	50	23.5	19.2	35	22.8	18.1
Sep-15	58	30.8	22.1	47	25.9	19.5	55	24.6	20.3	40	23.9	19.2
Oct-15	62	32.7	23.4	58	27.2	20.8	51	26.4	21.7	...		
Jan-16	67	33.8	24.5	63	28.3	21.9	58	27.5	22.8			
Feb-16	...			67	29.4	23.1	61	28.6	23.9			
Mar-16	58	33.4	26.1	62	30.5	24.2	69	29.7	22.8			
Min.	**52.0**	**29.7**	**19.0**	**42.0**	**24.7**	**18.4**	**49.0**	**23.5**	**19.2**	**35.0**	**22.2**	**18.1**
Max.	**67.0**	**39.0**	**26.1**	**67.0**	**31.0**	**24.2**	**69.0**	**33.0**	**23.9**	**57.0**	**23.9**	**21.7**
Avg.	**59.3**	**32.8**	**23.1**	**53.1**	**27.5**	**21.6**	**55.9**	**27.2**	**21.8**	**44.0**	**23.0**	**19.7**

NA- Not Applicable

ND-Not Detectable

Month	Ambient Air Quality Monitoring with Respect to Noise (April-2015 to March-2016)													
	NOISE LEVELS [db (A]													
	Admin Building		Old Colony		Near LPG Yard		Near New Colony (School)		Near SDP-2		Near Coating Plant		Near Gate No.2	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Apr-15	50.3	46.3	44.2	42.5	65.3	59.8	46.8	42.7	65.2	61.6	61.3	62.9	62.5	58.4
May-15	49.5	44.2	44.9	40.6	60.2	56.1	45.9	41.9	64.8	60.4	64.1	61.6	63.9	57.1
Jun-15	48.5	44.3	42.3	38.2	58.6	54.5	43.7	39.1	63.9	59.4	63.9	60.1	59.8	54.2
Jul-15	47.2	43.2	41.5	37.1	57.3	53.6	42.5	38.2	62.1	58.5	61.8	59.2	58.6	53.3
Aug-15	46.1	42.1	40.4	36.8	56.2	52.4	41.4	37.1	60.9	57.4	61.1	58.1	57.5	52.4
Sep-15	44.9	40.8	39.3	35.7	55.1	51.3	40.3	36.5	59.8	56.3	60.2	56.9	56.4	51.3
Oct-15	43.8	39.7	38.2	34.6	53.9	50.2	39.2	35.4	57.9	55.2	59.1	54.8	55.3	50.2
Nov-15	42.7	38.6	37.1	33.5	52.8	49.1	38.1	34.3	56.8	54.1	57.9	53.7	54.2	49.1
Dec-15	43.6	39.5	38.3	34.4	53.7	50.2	39.2	35.2	57.7	55.3	58.6	54.6	55.1	50.9
Jan-16	44.5	40.4	39.2	35.3	44.6	51.1	40.1	36.1	58.6	56.2	59.5	55.5	58.1	51.8
Feb-16	45.6	41.5	40.3	36.4	55.7	52.2	41.2	37.2	59.7	57.3	60.6	50.6	59.2	52.9
Mar-16	43.5	39.4	38.2	34.3	53.6	50.1	39.1	35.1	57.6	55.2	58.5	54.5	57.1	50.8
Min.	**42.7**	**38.6**	**37.1**	**33.5**	**44.6**	**49.1**	**38.1**	**34.3**	**56.8**	**54.1**	**57.9**	**50.6**	**54.2**	**49.1**
Max.	**50.3**	**46.3**	**44.9**	**42.5**	**65.3**	**59.8**	**46.8**	**42.7**	**65.2**	**61.6**	**64.1**	**62.9**	**63.9**	**58.4**
Avg.	**45.9**	**41.7**	**40.3**	**36.6**	**55.6**	**52.6**	**41.5**	**37.4**	**60.4**	**57.2**	**60.6**	**56.9**	**58.1**	**52.7**

MONTH	Near Sinter Plant-1		Near Sinter Plant-2		Near BF-1		Near BF-2		Near Main Gate Security Office	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Apr-15	67.1	60.3	64.2	62.8	64.5	60.4	66.3	62.9	59.6	47.8
May-15	66.8	60.9	65.1	61.8	65.7	62.9	64.4	52.1	51.6	46.8
Jun-15	65.7	60.1	64.3	60.9	61.9	57.8	61.1	53.5	50.2	45.6
Jul-15	64.7	58.9	63.4	59.8	60.8	56.1	60.1	52.3	49.3	44.7
Aug-15	63.6	57.8	62.3	58.7	59.7	55.7	58.9	51.2	48.2	43.6
Sep-15	62.5	56.7	61.2	57.6	58.6	54.5	57.8	50.1	47.1	42.5
Oct-15	61.4	55.6	60.1	56.5	57.5	53.4	56.7	48.9	54.9	41.4
Nov-15	62.3	54.5	58.9	55.4	56.4	52.3	55.6	47.8	44.8	40.3
Dec-15	61.2	55.4	59.8	56.3	57.3	53.2	56.5	48.7	54.7	41.2
Jan-16	62.1	56.3	60.7	57.2	58.2	54.1	57.4	49.6	46.6	42.1
Feb-16	63.2	57.4	61.8	58.3	59.3	55.2	58.5	50.1	47.3	43.0
Mar-16	61.1	55.3	59.7	56.2	57.2	53.1	56.4	48.6	45.2	41.1
Min.	**61.1**	**54.5**	**58.9**	**55.4**	**56.4**	**52.3**	**55.6**	**47.8**	**44.8**	**40.3**
Max.	**67.1**	**60.9**	**65.1**	**62.8**	**65.7**	**62.9**	**66.3**	**62.9**	**59.6**	**47.8**
Avg.	**63.5**	**57.4**	**61.8**	**58.5**	**59.8**	**55.7**	**59.1**	**51.3**	**50.0**	**43.3**

Work Place Noise Monitoring (April -2015 to March - 2016)

NOISE LEVELS [dB(A)]

Month	Sinter Plant-1				Sinter Plant-2				Blast Furnace -1						Blast Furnace-2		
	Inside Control Room	Inside Mechanical Room	Inside Electrical Room	Inside Plant office	Inside Control Room	Inside Operator Room	Near Proprtioning Building	Near Crusher House	Nr. Stock House	Inside Control Room	Inside Control Room of Cast House	Inside Laboratory	Inside Control Room of Blower House	Inside Control Room of CPP	Inside control room	Nr. Stock House	Control Room of Blower House
Apr-15	44.7	53.9	60.1	55.2	53.5	63.4	65.3	70.2	66.7	49.3	49.8	46.1	61.2	57.4	62.9	65.8	67.5
May-15	41.2	48.2	47.8	50.2	52.6	61.9	64.8	71.7	65.2	48.8	49.1	45.8	59.2	56.9	62.1	66.2	68.4
Jun-15	40.5	46.7	48.6	49.3	51.7	60.8	63.9	70.1	64.8	47.3	48.6	44.5	58.2	55.4	59.2	65.3	66.8
Jul-15	39.4	45.8	47.5	48.7	50.2	59.8	62.8	69.9	65.8	46.2	47.4	42.9	57.1	53.7	57.5	64.9	67.3
Aug-15	40.5	46.9	48.6	49.8	51.3	60.9	63.5	70.4	66.7	47.3	48.5	44.1	58.6	54.8	58.6	66.2	68.4
Sep-15	41.6	47.5	48.1	50.8	50.2	59.8	62.4	69.3	65.6	46.2	47.4	42.9	57.5	53.7	57.5	65.1	67.3
Oct-15	40.5	46.4	46.9	49.7	49.1	58.7	61.3	68.2	64.5	45.1	46.3	41.8	56.4	52.6	56.4	63.9	65.2
Nov-15	41.6	47.5	48.1	50.8	50.5	59.9	63.2	69.4	65.6	46.2	47.8	42.9	57.5	53.7	57.8	65.1	66.7
Dec-15	43.6	49.5	50.2	52.7	51.4	60.8	64.1	70.3	66.8	47.6	48.2	43.8	58.9	54.5	58.7	66.3	67.6
Jan-16	44.8	50.7	51.4	53.9	52.3	61.7	65.5	71.2	67.9	48.7	49.3	44.9	60.1	55.6	59.6	67.2	69.5
Feb-16	45.9	51.8	50.3	55.2	53.4	62.8	66.7	72.3	69.1	49.8	50.4	46.1	61.2	56.7	60.7	68.3	70.6
Mar-16	43.8	49.7	48.2	53.1	51.3	60.7	65.6	70.2	66.9	47.6	48.3	43.9	59.1	54.6	58.6	66.2	68.5
Min.	**39.4**	**45.8**	**46.9**	**48.7**	**49.1**	**58.7**	**61.3**	**68.2**	**64.5**	**45.1**	**46.3**	**41.8**	**56.4**	**52.6**	**56.4**	**63.9**	**65.2**
Max.	**45.9**	**53.9**	**60.1**	**55.2**	**53.5**	**63.4**	**66.7**	**72.3**	**69.1**	**49.8**	**50.4**	**46.1**	**61.2**	**57.4**	**62.9**	**68.3**	**70.6**
Avg.	**42.3**	**48.7**	**49.7**	**51.6**	**51.5**	**60.9**	**64.1**	**70.3**	**66.3**	**47.5**	**48.4**	**44.1**	**58.8**	**55.0**	**59.1**	**65.9**	**67.8**

NOISE LEVELS [dB(A)]

Pipe Plant

Month	Inside control room of Anealling Furnace of DISP	Inside Control Room - Mill area of Spiral Plant-1	Nr. Pipe Cutting Area of Spiral Plant	Inside JCO Plant	Inside DISP Plant	Inside Coating Plant	Nr. CCM SDP-2	Inside control room of Anneling furnace of SDP-2	Nr. Zinc Coating SDP-2	Nr. Mould Shop
Apr-15	53.5	64.1	73.2	67.9	73.5	70.8	67.3	60.9	71.6	72.8
May-15	52.2	62.8	72.9	68.3	72.2	69.5	66.1	53.2	70.3	72.8
Jun-15	51.5	61.7	71.4	67.3	71.6	68.1	65.2	51.6	69.4	73.8
Jul-15	50.7	60.9	70.8	66.4	72.5	69.1	66.1	50.9	70.4	74.3
Aug-15	51.8	61.7	71.9	67.5	73.6	70.5	67.2	52.1	71.5	75.4
Sep-15	50.7	60.6	70.8	66.4	72.5	69.4	66.1	50.9	70.4	74.3
Oct-15	49.6	59.9	69.7	65.3	71.4	68.3	64.9	49.2	69.8	76.6
Nov-15	50.9	60.1	70.4	66.7	72.8	69.5	65.6	50.9	70.2	77.3
Dec-15	51.4	61.5	71.3	67.2	73.4	70.2	66.1	51.7	72.1	78.6
Jan-16	52.3	62.4	72.2	68.1	74.3	71.1	67.8	52.6	73.5	79.4
Feb-16	53.4	63.5	73.3	69.2	75.4	72.2	68.9	53.7	74.6	80.5
Mar-16	51.3	61.4	72.2	67.1	73.2	70.1	66.8	51.6	72.5	78.4
Min.	**49.6**	**59.9**	**69.7**	**65.3**	**71.4**	**68.1**	**64.9**	**49.2**	**69.4**	**72.8**
Max.	**53.5**	**64.1**	**73.3**	**69.2**	**75.4**	**72.2**	**68.9**	**60.9**	**74.6**	**80.5**
Avg.	**51.6**	**61.7**	**71.7**	**67.3**	**73.0**	**69.9**	**66.5**	**52.4**	**71.4**	**76.2**

Annexure-III

STATUS OF GREENBELT & PLANTATIONS

The key objective to strengthen greenbelt in and around the plant premises to minimize the pollution load and to maintain ecological balance including sustainable development.

The following species of trees, shrubs & herbs have been planted in and around the plant premises at different location of ***IPU-Samaghogha of JINDAL SAW LIMITED***. Seasonal flowers of various varieties have also been planted to enhance aesthetic view.

TREES:

Bottle Brush, Peltaphorum, Neem, Arjun, Saru, Ficus Nuda, Cordia, Cassia, Chiku, Khirni, *Prosopis cineraria* (Khezri), Ficus Benjamina, Ficus Golden, Ficus Starlight, Accassia, Jakranda, Bahunia, Ravinia Palm, Foxtail Palm, Jamun, Badam, Ashok, Coconut, Arica Palm, Fan Palm, Anar, Phonix Palm, Guava, Amla, Spathodia, Shisham, Travellers Palm, Bhismarkia Palm, Alastonia, Amaltas, Champa, Karanj, Fishtail Palm, Date Palm, & Washingtonia Palm.

SHRUBS:

Hamelia, Duranta, Acalypha, Tabermontana (Chandni), Lantana, Euphorbia, Madhukamini, Cassiabiflora, Tecoma Capensis, Halmskodia, Dracena, Arelia, Aglonema, Diffenbachia, Petra Volublis, Clematis, Clerodendron, *Quisqualis Indica*, Begnonia Venusta, Gardenia, Manihot, Ixora, Beloprane, Iresine Red, Harsingar, Hibiscus, Ficus Panda, Thuja, Calenchu,Calliandra, Allamanda, Kadvi Mehendi , Croton, Bougainvillea, Rose, Galphamia, Kaner, Nicdivia,*Caesalpinnia pulchirema* , *Lagerstromea indica*, *Nyctanthes arbotritis*, *Jasminum sambak*, *Jasminum humile*, Scheflerra & Yucca,

HERBS:

Strawberry, Vinca, Garbera, Rohea Spathia, Canna Dwarf, Spathyphyllum, Daisy, Asparagus, Fern, Chlorophytum, Chrysenthemum, Silver Dust, Kochea, Marigold, Cosmos, Ageratum, Partulaca, Gompherena & Spider Lily,

Details of Plantations Carried Out During the period of April -2015 to March-2016

Month	No. of Saplings	Species Planted	Location
April-15	142	Nicdivia, Euphorbia & Ficas Panda	VIP Guest House & Pot Plantation
May-15	Nil	---	Land Development activity
June-15	700	Tamarind, Saru, Peltaphorum, Jamun, Mango, Karanj, Cordia, Neem, Bottle Palm & Erica Palm	Samaghogha village, Samaghogha village road side, Bhujpur Village, RMHS boundary wall, Spiral-2 Crane maintenance area, New colony near gate, Coating Plant near LPG area, Spiral-2 pump house & Children Park.
July-15	102	Champa, Badam & Gultora	RO plant, Vikaspuram,Spiral-2, New Colony Electrical Control Room
Aug-15	3760	Coconut, Ber, Anar, Mango, Peltaphorum, Sisam, Ficas Nuda, Kaner Red, Mehendi, Croton, Arelia, Chiku, Desi Rose, Bottle Palm,Bougainvillea	Spiral-1 Lawn, Spiral-2 Crane maintenance area, Cafeteria, Vikaspuram, Chairman Bungalow, Sinter Plant, Outside of Gate no. 2, Near Club House, Fountain Garden, Admin area & Spiral-2 pump house.
Sep-15	1311	Bottle Palm, Peltaphorum, Coconut, Ber, Ficas Nuda, Kaner Red , Karanj, Sisam, Saru, Bougainvillea & Mehendi	Vikas Puram, Spiral-2 Crane maintenance area, Outside of plant, New Coating area, Chairman Bungalow
Oct-15	9157	Coconut, Ber, Anar, Mehendi Kadvi, Mango Kesar, Kaner Red, Arelia, Erica Palm, Desi Rose, English Rose, Ixora Red, Ixora Pink, Ficas Panda, Bougainvillea, Kaner Yellow, Hibiscas Red, Acalypha, Tecoma, Song of India, Chandni, Hamelia Dwarf.	Chairman Bungalow, Chairman Bungalow to HR building through fencing line, GM guest house to old colony corner, E & I Control Room(Colony), Admin Block, Water Treatment Plant, Outside temple, Cafeteria, JCO road & old colony boundary wall, Inside temple, Admin Block, VIP Guest House, New Coating Plant, Spiral-2, Dispatch road etc.
Nov-15	13203	Kadvi Mehendi, Ficas Nuda, Kaner Red, Ixora Red, Ixora Pink, Ficas Panda, Bougainvillea, Kaner Yellow,Hibiscas Red, Acalypha, Tecoma, Madhumalti, Chandni, Hamelia Dwarf, Cordia, Schefflera, Euphorbia Pink, Phoenix Palm, Ashoka, Zed Plants, Crysenthimum, Champa, Nicdivia.	Spiral-1, DISP trolley line, BF lab (Road side), Mould shop (Road side), SDP-2 trolley line, CPP (near LDO tank), New coating plant, old colony to Env. office road side, SDP-2 (Behind canteen), Cricket Ground, Spiral-2 pump house, Boundary Wall (Samaghogha to Gate no.2), Spral-2 (Back side of mm workshop), Fencing line (Diesel Pump), Chairman Bungalow, Savitrivihar, Admin Block.
Dec-15	5299	Tamarind, Saru, Peltaphorum, Jamun, Mango, Karanj, Cordia, Neem, Bottle Palm & Erica Palm	Samaghogha village, Samaghogha village road side, Bhujpur Village, RMHS boundary wall, Spiral-2 Crane maintenance area, New colony near gate, Coating Plant near LPG area, Spiral-2 pump house & Children Park.
Jan-16	177	Arelia, Euphorbia, Nicdivia, Champa, Ashoka	RO plant, Vikaspuram,Spiral-2, New Colony Electrical Control Room
Feb-16	--	--	--
Mar-16	9786	Ixora Pink, Bougainvillea, Tecoma, Kaner Yellow, Ficus Nuda, Kadvi	SDP-2, GM guest House, Sinter Plant, Coating Plant,Spiral-2, Water Treatment Plant, Back Side

		Mehebdi, Chiku, Mehendi, Guava, Banana, Ficas Panda, Ixora Red, Cordia, Nicdivia, Hibiscas, Phoenic Palm,	of Environment Office, Switch Yard, Temple area,Gate no.-2, Samaghogha Gram Panchayat, Cricket Ground, Nace Lab area.
Total	**43637**		

Numbers of total plantations as on dated 31st March, 2015 : **121875**
Number of saplings planted during - 1st April.15 to 31st March -16 : **43637**
Total Numbers of Plants : **165512**

Annexure-IV

CSR EXPENSES FOR THE PERIOD OF APRIL, 2015 TO MARCH, 2016 AS ACTIVITIES CARRIED OUT BY JINDAL SAW LIMITED, IPU-SAMAGHOGHA-GUJARAT

Nature of Activities	Whom to paid	Amount (Rs.)
Medical Expenses	Medical camps, Mobile dispensaries, General Medical Treatment in OPD & Indoor, Blood Donation Camp & Medicines etc.	3191331.00
Expenses incurred under Education program	Salary paid to teachers	222699.00
	Annual Sports activities at Samaghogha School	15000.00
Environmental Expenses	Incurred by the company	15240804.00
Social Welfare Expenses	Animal Husbandry - Grass distribution at Samaghogha & Bhujpur	1880103.00
	Salary paid to security at Bhujpur village	104000.00
	Donation to Samajwadi at Bhujpur	200000.00
	Infrastructure Development – Construiction of Overhead tank at Samaghogha Village	2,45,010.00
Other Expenses	Donation for Navaratri Mahotsav at Mundra	5000.00
	Misc. Expenses related to CSR	556010.00
Total		**21659957.00**

JINDAL

JINDAL SAW LTD.

JSL/ENV/F-12/GPCB/2015-16 **Date: 30.07.2016**

To,
The Member Secretary
Gujarat Pollution Control Board
Paryavaran Bhavan
Sector – 10 A
Gandhinagar –382010

Sub: -Environmental Statement (Form-V) for Mini Blast Furnace-2 (GPCB ID-29026) of Jindal Saw Limited for the year 2015-16.

Ref: *- Mini Blast Furnace Plant-2 (PCB ID-29026, Consent Order No. AWH- 58176 issued on dated 08.11.2013).*

Dear Sir,

This has reference to the above; we are submitting herewith **Environmental Statement (Form-V)** for **Blast Furnace Plant-2** of **Jindal Saw Limited**, Plot No.325, Village - Samaghogha, Taluka – Mundra, District- Kutch (Gujarat) for the period ***April - 2015 to March - 2016.***

Kindly acknowledge receipt for the same.

Thanking you.

Yours faithfully,
For **JINDAL SAW LTD.**

A.K.Pandey
AGM- Environment

Encls: As above

CC:
Regional Officer
Gujarat Pollution Control Board
Room No. 215-217 Administrative office Building
Second Floor, Kandla Port Trust, Sector-8
Gandhidham, Kutch
Gujarat- 370201

From- V

{See Rule14}

Environmental Statement for the period April 2015 to March 2016

Mini Blast Furnace (PCB ID- 29026)

Part-A

(i) Name and address of the owner/occupier of the industry operation and process

Mr. H. S. Chaudhary
JINDAL SAW LIMITED
A-1, UPSIDC Industrial Area
Nandgaon Road, Kosi Kalan
District Mathura-281403 (U.P.)

(ii) Industry category primary-(STC code) Secondary-(SIC Code) : **Red**

(iii) Production Capacity - **280000 TPA**

(iv) Year of Establishment : **December - 2012**

(v) Date of last Environment statement submitted: **25.08.2015**

Part- B

Water and Raw Material consumption

(i) Water consumption m^3 /day

Process - **NIL**
Cooling - **247.05**
Domestic - **NIL**

Name of Products	Process Water Consumption per unit of product output	
	During the previous financial year	During the current financial year
Hot Metal/Pig iron	0.42 KL / MT	**0.39 KL/MT**

(i) Raw material consumption-

Sr. No	Name of Raw Materials	Name of Products	Consumption of raw material per unit of output	
			During the previous financial year	During the current financial year
1	**Sinter**	**Hot Metal/ Pig Iron**	1.869	**1.720**
2	**Coke**		0.649	**0.649**
3	**Iron Ore**		0.167	**0.156**
4	**Dolomite**		0.000	**0.000**
5	**Quartzite**		0.055	**0.049**
6	**Lime stone**		0.001	**0.0006**
7	**Manganese Ore**		0.008	**0.006**
8	**Pellet**		...	**0.077**
9	**Nut Coke**		...	**0.015**

Month wise raw material consumption & production detail is enclosed as **Annexure-I**

- Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw material used.

Part – C

Pollution discharged to environment/unit of output
(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharge (Mass/Day)	Concentration of pollutants in discharges (Mass/Volume)	Percentage of variation from prescribed standards with reasons
(a) Water	**No discharge of treated domestic wastewater, it is being reused for plant cooling, dust suppression & horticulture purposes.**		**Results are well below the permissible limits.**
(b) Air	**Monitoring Results (Ambient Air, Stack Emission, Noise Level, and Water & Wastewater Quality) is enclosed as Annexure-II.**		**Results are well below the permissible limits.**

Part – D

(As specified under [Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008)]

Hazardous Waste	Total Quantity (KL)	
	During the previous financial year.	During the current financial year.
(a) From Process	Not applicable	Not applicable
(b) From Pollution Control Facilities		
(c) Others		
(i)Used Oil	**Nil**	**15.750 KL**
(ii)Discarded Container	**1550 nos.**	**2459 Nos.**

Part – E

Solid waste

Solid waste	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
(a) From Process (BF Slag)	90658 MT	**107585 MT**
(b) From Pollution Control Facilities (Flue Dust)	9582.648 MT	**6633.440 MT**
(c) (1) Quantity recycled or re-utilized within the unit	Flue Dust – 9582.648 MT BF Slag - 28098 MT	**Flue Dust – 6633.440 MT** **BF Slag - 21626 MT**
(2) Sold	BF Slag- 104460 MT	**BF Slag- 155681 MT**
(3) Disposed	Nil	**Nil**

Note: Opening stock of BF Slag as on date-31.03.2015: **27420 MT** & Closing stock of BF Slag as on date-31.03.16: **20676 MT.**

From Process:-

- Blast Furnace gas dust and BF reject materials are fully (100%) recycled and is being used as raw material of Sinter Plant.
- BF Slag is generated from Blast Furnace and is being used in Slag Grinding Plant located at Pragpar.
- BF Gas is generated from blast furnace and it is used as a fuel in deferent section of plant in place of LDO, HSD and LPG.

From pollution control:-

Dust collected from RMHS is being used as raw material in sinter plant.

Quantity recycled or reutilized within the unit

1. Blast furnace slag is being sold to the cement manufacturer and this slag is also being used in our slag grinding unit for in house cement manufacturing.
2. Dust collection from DDS plant is used 100% as raw material of Sinter Plant.

Part F

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

Dry dust generated from De Dusting System is being used as raw material in Sinter Plant.

Discarded Container: - Discarded Container/ Barrel is being sold to authorized re-cyclers.

Used Oil:- Used oil is being sold to authorized recyclers.

Part – G

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

1. **Water Conservation:** 100 % of plant generated waste water from different units being recycled / re used in process.
2. **Energy Saving:** We have installed the pulverized Coal injection system for energy saving as well as reduced the consumption of coke in BF and smooth operation of Blast Furnace.
3. **Air Pollution Control Facilities** – BF Gas is generated from blast furnace along with dust content. This fine dust is separated through dry de- dusting system in dry form and the same is being used 100% in sinter plant as raw material.

Part – H

Additional measures/ investment proposed for investment proposed for environment protection including abatement of pollution, prevention of pollution.

- Company has installed the dry de-dusting system (DDS) in place of wet venture scrubber system in which we get directly Dry Dust from BF plant which is being used (100%) in Sinter plant as a raw material and **saving the approx-130 to 140 m^3/day water consumption**.
- Company has also installed Dry Fogging System (water fog canon) at raw material handling storage yard to minimize fugitive emissions during raw material handling.

Part-I

Any other particulars for improving the quality of the environment.

The followings factors which are directly responsible to maintain pollution levels through continual improvements:

- Certified with IMS (ISO 9001:2008, OHSAS 18001:2007 & ISO 14001:2004) from ***BUREAU VERITAS***.
- Regular environmental monitoring carried out for stack emission, ambient air quality and Noise level reports are submitted to Gujarat Pollution Control Board. All results are within the norms prescribed by the Gujarat Pollution Control Board.
- Periodic maintenance of all pollution control measures.

- Green belt has been developed by covering ***90 acres*** area within plant premises and planted more than ***1.65 lakhs*** saplings. The detail of plantations is enclosed as ***Annexure-III***.
- Regular housekeeping to reduce fugitive emissions.
- Regular water sprinkling is being carried out through water tanker for minimizing fugitive emission.
- CSR activities as carried out in the surrounding area along with cost incurred during ***2015-2016*** is enclosed as ***Annexure –IV***

(Authorized Signatory)

Name: **V. Rajasekaran**
Designation: **Vice President**

Address: **JINDAL SAW LIMITED**
(IPU- Samaghogha)
Village: Samaghogha
Taluka: Mundra
Dist.: Kutch
Gujarat-370415

Annexure – I

BLAST FURNACE-2

DETAILS OF PRODUCTION

Month	HOT METAL (MT)
Apr-15	22127
May-15	20313
June-15	14318
Jul-15	20800
Aug-15	20607
Sep -15	19510
Oct -15	18866
Nov-15	19103
Dec-15	19234
Jan-16	19253
Feb-16	17319
Mar-16	19933
Total	**231383**

DETAILS OF RAW MATERIAL CONSUMPTION (MT)

Month	Iron Ore	Sinter	Pellet	Coke	Nut Coke	Lime Stone	Dolomite	Quartzite	Manganese Ore
Apr-15	4136	37998	--	13585	--	1	--	1244	2
May-15	3458	35938	352	12952	--	1	--	1275	--
June-15	1718	24615	873	9337	--	8	5	851	3
Jul-15	1529	36681	2821	13360	--	1		1082	96
Aug-15	1216	36801	3617	13635	--	11	3	682	258
Sep -15	2953	33847	1436	13200	--	3	3	649	310
Oct -15	2184	32800	1097	12833	29	8	--	753	280
Nov-15	1731	30665	3898	11906	902	29	--	603	--
Dec-15	4516	29855	3050	12077	961	25	--	734	6
Jan-16	5560	31525	555	12625	839	21	--	697	115
Feb-16	3163	31074	--	11494	331	3	--	1427	184
Mar-16	3607	36277	--	13092	451	34	--	1430	131
Total	**35771**	**398076**	**17699**	**150096**	**3513**	**145**	**11**	**11427**	**1385**

DETAILS WATER CONSUMPTION (KL)

Month	Water Consumption
Apr-15	6998
May-15	6806
June-15	6336
Jul-15	7772
Aug-15	9229
Sep -15	8841
Oct -15	8175
Nov-15	7832
Dec-15	7159
Jan-16	6552
Feb-16	6422
Mar-16	8052
Total	**90174**

Annexure-II

National Ambient Air Quality Monitoring Results (April-15 to March-16)

Month	Name of Locations														
	Main Gate (NAAQMS-1)					Sinter Plant-1 (NAAQMS-2)					Nr. Workshop Spiral -II (NAAQMS-3)				
	PM 10	PM2.5	SO_2	NO_2	CO**	PM 10	PM2.5	SO_2	NO_2	CO**	PM 10	PM2.5	SO_2	NO_2	CO**
	Average Values (Unit:- µg/m^3)														
Apr-15	64.7	41.2	3.7	21.1		69.2	47.2	4.1	20.7		56.2	35.2	3.8	18.2	
May-15	64.0	18.5	4.8	20.5		68.5	16.5	4.7	20.0		51.5	15.5	3.7	18.2	
Jun-15	56.0	20.0	4.1	19.6		67.5	21.5	4.9	18.7		44.5	15.5	3.1	17.4	
Jul-15	41.0	16.5	3.2	16.2		49.0	23.0	3.9	16.4		33.5	17.0	2.5	13.9	
Aug-15	49.9	21.3	4.1	18.3		55.5	24.5	4.5	16.7		38.1	17.3	2.7	14.8	
Sep-15	47.3	20.9	3.3	17.1	BDL	49.3	23.2	3.3	15.3	BDL	32.6	14.1	2.0	14.5	BDL
Oct-15	64.7	41.2	3.7	21.1		69.2	47.2	4.1	20.7		56.2	35.2	3.8	18.2	
Nov-15	64.0	18.5	4.8	20.5		68.5	16.5	4.7	20.0		51.5	15.5	3.7	18.2	
Dec-15	56.0	20.0	4.1	19.6		67.5	21.5	4.9	18.7		44.5	15.5	3.1	17.4	
Jan-16	41.0	16.5	3.2	16.2		49.0	23.0	3.9	16.4		33.5	17.0	2.5	13.9	
Feb-16	49.9	21.3	4.1	18.3		55.5	24.5	4.5	16.7		38.1	17.3	2.7	14.8	
Mar-16	47.3	20.9	3.3	17.1		49.3	23.2	3.3	15.3		32.6	14.1	2.0	14.5	
Min	**41.0**	**16.5**	**3.2**	**16.2**	BDL	**49.0**	**16.5**	**3.3**	**15.3**	BDL	**32.6**	**14.1**	**2.0**	**13.9**	BDL
Max	**64.7**	**41.2**	**4.8**	**21.1**		**69.2**	**47.2**	**4.9**	**20.7**		**56.2**	**35.2**	**3.8**	**18.2**	
Avg.	**53.8**	**23.1**	**3.9**	**18.8**		**59.8**	**26.0**	**4.2**	**18.0**		**42.7**	**19.1**	**3.0**	**16.2**	

BDL= Below detectable limit

Ambient Air Quality Monitoring Results (April-15 to March-16)

Month	Name of Locations																					
	Old Colony (AAQ-1)						Nr. Rain Water Harvesting Pond (AAQ-2)						LPG Yard (AAQ-3)						Between Sinter & Spiral (AAQ-4)					
	Unit- µg/m3																					
	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*
r-15	46.0	27.0	3.8	14.4			41.0	24.0	4.5	17.3			56.0	35.0	3.1	12.2			49.0	31.0	3.9	11.4		
y-15	39.0	16.0	2.9	13.5			48.0	19.0	3.7	16.4			41.0	18.0	4.1	14.1			43.0	14.0	4.8	12.3		
n-15	28.0	11.0	1.8	12.4			56.0	22.0	3.2	15.7			48	20.0	3.5	13.6			51	18	4.3	11.8		
l-15	32.0	16.0	1.2	13.8			64.0	26.0	2.5	16.4			53.0	23.0	4.4	14.5			59.0	21.0	3.6	12.7		
g-15	37.0	11.0	1.7	12.6			60.0	23.0	1.9	15.2			57.0	26.0	3.8	13.7			52.0	18.0	2.9	11.8		
p-15	28.0	13.0	1.1	9.7	BDL	ND	49.0	21.0	2.3	13.1	BDL	ND	51.0	24.0	3.1	12.6	BDL	ND	47.0	16.0	1.8	10.7	BDL	ND
t-15	25.0	10.0	1.6	8.6			34.0	14.0	2.9	11.9			39.0	20.0	2.7	10.5			43.0	13.0	2.4	9.5		
v-15	29.0	13.0	1.2	7.5			38.0	16.0	3.5	10.8			44.0	23.0	1.2	9.4			48.0	15.0	3.1	8.9		
c-15	33.0	15.0	1.8	6.9			43.0	19.0	2.6	11.5			39	21.0	3.5	10.6			36	13	2.8	9.5		
n-16	24.0	11.0	2.3	7.6			48.0	23.0	3.5	12.6			43.0	18.0	4.2	11.5			31.0	15.0	3.7	10.4		
b-16	29.0	13.0	1.8	8.3			43.0	19.0	2.6	11.5			48.0	22.0	3.4	10.3			36.0	17.0	3.1	9.5		
r-16	24.0	11.0	1.2	7.2			37.0	15.0	2.2	8.4			48.0	20.0	2.9	9.2			40.0	19.0	2.5	8.4		
n.	**24.0**	**10.0**	**1.1**	**6.9**			**34.0**	**14.0**	**1.9**	**8.4**			**39.0**	**18.0**	**1.2**	**9.2**			**31.0**	**13.0**	**1.8**	**8.4**		
ax.	**46.0**	**27.0**	**3.8**	**14.4**	BDL	ND	**64.0**	**26.0**	**4.5**	**17.3**	BDL	ND	**57.0**	**35.0**	**4.4**	**14.5**	BDL	ND	**59.0**	**31.0**	**4.8**	**12.7**	BDL	ND
g.	**31.2**	**13.9**	**1.9**	**10.2**			**46.8**	**20.1**	**3.0**	**13.4**			**47.3**	**22.5**	**3.3**	**11.9**			**44.6**	**17.5**	**3.2**	**10.6**		

Month	Labour Colony (AAQ-5)						New Colony (AAQ-6)						VIP Guest House (AAQ-7)						Weigh Bridge No.-1 (AAQ-8)					
	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*
	Unit-µg/m3																							
-15	65.0	49.0	3.6	11.4			61.0	44.0	12.2	10.2			67.0	40.0	2.9	8.7			71.0	48.0	2.1	8.5		
-15	49.0	12.0	3.1	12.3			55.0	18.0	3.9	11.5			52.0	11.0	3.1	9.3			59.0	15.0	2.4	10.5		
-15	40.0	14.0	2.6	11.1			44.0	12.0	2.8	10.6			37.0	16.0	2.0	9.9			64.0	24.0	2.8	12.8		
15	45.0	19.0	2.1	13.4			50.0	17.0	3.3	11.6			42.0	24.0	2.9	3.5			68.0	29.0	4.8	13.9		
-15	49	16	2.8	12.1			42	13.0	4.1	10.6			46.0	22.0	2.2	9.5			63.0	27.0	5.3	14.2		
-15	42	19	3.4	11.2	BDL	ND	54	27	3.9	10.1	BDL	ND	38	15	3.8	11.9	BDL	ND	60	29	4.2	13.8	BDL	ND
15	45.0	16.0	3.9	10.1			41.0	23.0	2.1	9.1			35.0	21.0	3.3	12.3			38.0	18.0	4.9	14.4		
-15	40.0	19.0	4.8	9.7			35.0	26.0	2.9	8.3			31.0	24.0	3.7	11.2			42.0	21.0	5.5	13.2		
-15	46.0	23.0	4.1	10.7			30.0	20.0	2.2	9.1			40.0	18.0	2.1	12.6			48.0	24.0	4.9	14.7		
-16	40.0	19.0	5.2	11.8			35.0	22.0	3.4	10.2			33.0	14.0	4.2	13.7			54.0	20.0	6.1	15.8		
-16	44	21	4.5	10.9			31	18.0	2.8	11.4			37.0	16.0	3.5	14.5			50.0	24.0	7.4	16.9		
-16	39	18	3.8	9.8			35	16	2.4	10.3			42	21	2.8	13.4			55	22	8.5	15.8		
n.	**39.0**	**12.0**	**2.1**	**9.7**			**30.0**	**12.0**	**2.1**	**8.3**			**31.0**	**11.0**	**2.0**	**3.5**			**38.0**	**15.0**	**2.1**	**8.5**		
x.	**65.0**	**49.0**	**5.2**	**13.4**	BDL	ND	**61.0**	**44.0**	**12.2**	**11.6**	BDL	ND	**67.0**	**40.0**	**4.2**	**14.5**	BDL	ND	**71.0**	**48.0**	**8.5**	**16.9**	BDL	ND
g.	**45.3**	**20.4**	**3.7**	**11.2**			**42.8**	**21.3**	**3.8**	**10.3**			**41.7**	**20.2**	**3.0**	**10.9**			**56.0**	**25.1**	**4.9**	**13.7**		

elow Detectable Limit
t Detectable

FUGITIVE EMISSION RESULTS (APRIL-2015 TO March-16)

Name of Locations

Unit- µg/m3

Months	RMH Junction House (A-1)					RMH Stock House (A-2)					Sinter RMH Yard (A-3)					Sinter 2 Ground Hopper (A-4)					DISP CCM Area (A-5)					Sinter-1 Main to PMD (A-6)				
	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*
Apr-15	1384	6	29			1987	6	30			2234	7	27			1241	7	26			915	7	14			1428	6	22		
May-15	972	7	27			1497	6	28			1974	8	25			619	8	24			791	9	32			1428	8	24		
Jun-15	1057	8	26			1564	8	28			1813	9	24			789	7	23			597	10	33			1676	9	25		
Jul 15	1341	9.5	26.3			1720	8.9	27.6			2104	10.3	25.1			931	8	24			668	11	31			1896	11	28		
Aug 15	1420	10	27			1922	10	29			2319	12	27			1013	9	24			712	12	33			2015	11	29		
Sep-15	1597	12	26	BDL	ND	2109	11	27	BDL	ND	1915	13	26	BDL	ND	1234	9	23	BDL	ND	623	13	31	BDL	ND	2254	10	28	BDL	ND
Oct-15	1263	12.6	27.9			1479	11.8	28.5			1135	13.7	26.7			732	10.3	24.2			516	14.4	31.5			924	11.1	29.4		
Nov-15	1121	11.5	26.8			1302	10.7	27.4			1024	12.6	25.6			617	9.2	23.1			420	13.1	30.4			807	10.5	28.3		
Dec-15	1328	12.7	25.6			1211	11.9	26.3			1154	13.8	24.7			764	10.5	21.8			512	14.6	29.1			992	11.2	27.2		
Jan-16	1482	13.8	26.7			1310	12.7	27.2			1246	14.9	25.8			855	11.6	22.9			608	15.7	28.4			1081	12.3	26.1		
Feb-16	1361	12.9	25.8			1243	11.8	26.3			1108	13.7	24.9			746	10.7	21.6			513	14.8	27.5			950	11.4	25.2		
Mar-16	1457	13.8	26.7			1534	12.7	27.2			1211	14.6	25.8			920	11.6	22.5			619	15.7	28.4			1347	12.3	26.1		
Min	**972**	**6**	**26**			**1211**	**6**	**26**			**1024**	**7**	**24**			**617**	**7**	**22**			**420**	**7**	**14**			**807**	**6**	**22**		
Max	**1597**	**14**	**29**	BDL	ND	**2109**	**13**	**30**	BDL	ND	**2319**	**15**	**27**	BDL	ND	**1241**	**12**	**26**	BDL	ND	**915**	**16**	**33**	BDL	ND	**2254**	**12**	**29**	BDL	ND
Avg	**1317**	**11**	**27**			**1573**	**10**	**28**			**1603**	**12**	**26**			**872**	**9**	**23**			**625**	**13**	**29**			**1400**	**10**	**27**		

BDL= Below Detectable Limit

ND= Not Detectable

Month	Ambient Air Quality Monitoring with Respect to Noise (April-2015 to March-2016)													
	NOISE LEVELS [db (A]													
	Admin Building		Old Colony		Near LPG Yard		Near New Colony (School)		Near SDP-2		Near Coating Plant		Near Gate No.2	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Apr-15	50.3	46.3	44.2	42.5	65.3	59.8	46.8	42.7	65.2	61.6	61.3	62.9	62.5	58.4
May-15	49.5	44.2	44.9	40.6	60.2	56.1	45.9	41.9	64.8	60.4	64.1	61.6	63.9	57.1
Jun-15	48.5	44.3	42.3	38.2	58.6	54.5	43.7	39.1	63.9	59.4	63.9	60.1	59.8	54.2
Jul-15	47.2	43.2	41.5	37.1	57.3	53.6	42.5	38.2	62.1	58.5	61.8	59.2	58.6	53.3
Aug-15	46.1	42.1	40.4	36.8	56.2	52.4	41.4	37.1	60.9	57.4	61.1	58.1	57.5	52.4
Sep-15	44.9	40.8	39.3	35.7	55.1	51.3	40.3	36.5	59.8	56.3	60.2	56.9	56.4	51.3
Oct-15	43.8	39.7	38.2	34.6	53.9	50.2	39.2	35.4	57.9	55.2	59.1	54.8	55.3	50.2
Nov-15	42.7	38.6	37.1	33.5	52.8	49.1	38.1	34.3	56.8	54.1	57.9	53.7	54.2	49.1
Dec-15	43.6	39.5	38.3	34.4	53.7	50.2	39.2	35.2	57.7	55.3	58.6	54.6	55.1	50.9
Jan-16	44.5	40.4	39.2	35.3	44.6	51.1	40.1	36.1	58.6	56.2	59.5	55.5	58.1	51.8
Feb-16	45.6	41.5	40.3	36.4	55.7	52.2	41.2	37.2	59.7	57.3	60.6	50.6	59.2	52.9
Mar-16	43.5	39.4	38.2	34.3	53.6	50.1	39.1	35.1	57.6	55.2	58.5	54.5	57.1	50.8
Min.	**42.7**	**38.6**	**37.1**	**33.5**	**44.6**	**49.1**	**38.1**	**34.3**	**56.8**	**54.1**	**57.9**	**50.6**	**54.2**	**49.1**
Max.	**50.3**	**46.3**	**44.9**	**42.5**	**65.3**	**59.8**	**46.8**	**42.7**	**65.2**	**61.6**	**64.1**	**62.9**	**63.9**	**58.4**
Avg.	**45.9**	**41.7**	**40.3**	**36.6**	**55.6**	**52.6**	**41.5**	**37.4**	**60.4**	**57.2**	**60.6**	**56.9**	**58.1**	**52.7**

MONTH	Near Sinter Plant-1		Near Sinter Plant-2		Near BF-1		Near BF-2		Near Main Gate Security Office	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Apr-15	67.1	60.3	64.2	62.8	64.5	60.4	66.3	62.9	59.6	47.8
May-15	66.8	60.9	65.1	61.8	65.7	62.9	64.4	52.1	51.6	46.8
Jun-15	65.7	60.1	64.3	60.9	61.9	57.8	61.1	53.5	50.2	45.6
Jul-15	64.7	58.9	63.4	59.8	60.8	56.1	60.1	52.3	49.3	44.7
Aug-15	63.6	57.8	62.3	58.7	59.7	55.7	58.9	51.2	48.2	43.6
Sep-15	62.5	56.7	61.2	57.6	58.6	54.5	57.8	50.1	47.1	42.5
Oct-15	61.4	55.6	60.1	56.5	57.5	53.4	56.7	48.9	54.9	41.4
Nov-15	62.3	54.5	58.9	55.4	56.4	52.3	55.6	47.8	44.8	40.3
Dec-15	61.2	55.4	59.8	56.3	57.3	53.2	56.5	48.7	54.7	41.2
Jan-16	62.1	56.3	60.7	57.2	58.2	54.1	57.4	49.6	46.6	42.1
Feb-16	63.2	57.4	61.8	58.3	59.3	55.2	58.5	50.1	47.3	43.0
Mar-16	61.1	55.3	59.7	56.2	57.2	53.1	56.4	48.6	45.2	41.1
Min.	**61.1**	**54.5**	**58.9**	**55.4**	**56.4**	**52.3**	**55.6**	**47.8**	**44.8**	**40.3**
Max.	**67.1**	**60.9**	**65.1**	**62.8**	**65.7**	**62.9**	**66.3**	**62.9**	**59.6**	**47.8**
Avg.	**63.5**	**57.4**	**61.8**	**58.5**	**59.8**	**55.7**	**59.1**	**51.3**	**50.0**	**43.3**

Work Place Noise Monitoring (April -2015 to March - 2016)

NOISE LEVELS [dB(A)]

Month	Sinter Plant-1				Sinter Plant-2				Blast Furnace -1						Blast Furnace-2		
	Inside Control Room	Inside Mechanical Room	Inside Electrical Room	Inside Plant office	Inside Control Room	Inside Operator Room	Near Proprtioning Building	Near Crusher House	Nr. Stock House	Inside Control Room	Inside Control Room of Cast House	Inside Laboratory	Inside Control Room of Blower House	Inside Control Room of CPP	Inside control room	Nr. Stock House	Control Room of Blower House
Apr-15	44.7	53.9	60.1	55.2	53.5	63.4	65.3	70.2	66.7	49.3	49.8	46.1	61.2	57.4	62.9	65.8	67.5
May-15	41.2	48.2	47.8	50.2	52.6	61.9	64.8	71.7	65.2	48.8	49.1	45.8	59.2	56.9	62.1	66.2	68.4
Jun-15	40.5	46.7	48.6	49.3	51.7	60.8	63.9	70.1	64.8	47.3	48.6	44.5	58.2	55.4	59.2	65.3	66.8
Jul-15	39.4	45.8	47.5	48.7	50.2	59.8	62.8	69.9	65.8	46.2	47.4	42.9	57.1	53.7	57.5	64.9	67.3
Aug-15	40.5	46.9	48.6	49.8	51.3	60.9	63.5	70.4	66.7	47.3	48.5	44.1	58.6	54.8	58.6	66.2	68.4
Sep-15	41.6	47.5	48.1	50.8	50.2	59.8	62.4	69.3	65.6	46.2	47.4	42.9	57.5	53.7	57.5	65.1	67.3
Oct-15	40.5	46.4	46.9	49.7	49.1	58.7	61.3	68.2	64.5	45.1	46.3	41.8	56.4	52.6	56.4	63.9	65.2
Nov-15	41.6	47.5	48.1	50.8	50.5	59.9	63.2	69.4	65.6	46.2	47.8	42.9	57.5	53.7	57.8	65.1	66.7
Dec-15	43.6	49.5	50.2	52.7	51.4	60.8	64.1	70.3	66.8	47.6	48.2	43.8	58.9	54.5	58.7	66.3	67.6
Jan-16	44.8	50.7	51.4	53.9	52.3	61.7	65.5	71.2	67.9	48.7	49.3	44.9	60.1	55.6	59.6	67.2	69.5
Feb-16	45.9	51.8	50.3	55.2	53.4	62.8	66.7	72.3	69.1	49.8	50.4	46.1	61.2	56.7	60.7	68.3	70.6
Mar-16	43.8	49.7	48.2	53.1	51.3	60.7	65.6	70.2	66.9	47.6	48.3	43.9	59.1	54.6	58.6	66.2	68.5
Min.	**39.4**	**45.8**	**46.9**	**48.7**	**49.1**	**58.7**	**61.3**	**68.2**	**64.5**	**45.1**	**46.3**	**41.8**	**56.4**	**52.6**	**56.4**	**63.9**	**65.2**
Max.	**45.9**	**53.9**	**60.1**	**55.2**	**53.5**	**63.4**	**66.7**	**72.3**	**69.1**	**49.8**	**50.4**	**46.1**	**61.2**	**57.4**	**62.9**	**68.3**	**70.6**
Avg.	**42.3**	**48.7**	**49.7**	**51.6**	**51.5**	**60.9**	**64.1**	**70.3**	**66.3**	**47.5**	**48.4**	**44.1**	**58.8**	**55.0**	**59.1**	**65.9**	**67.8**

NOISE LEVELS [dB(A)]

Month	Pipe Plant									
	Inside control room of Anealling Furnace of DISP	Inside Control Room - Mill area of Spiral Plant-1	Nr. Pipe Cutting Area of Spiral Plant	Inside JCO Plant	Inside DISP Plant	Inside Coating Plant	Nr. CCM SDP-2	Inside control room of Anneling furnace of SDP-2	Nr. Zinc Coating SDP-2	Nr. Mould Shop
Apr-15	53.5	64.1	73.2	67.9	73.5	70.8	67.3	60.9	71.6	72.8
May-15	52.2	62.8	72.9	68.3	72.2	69.5	66.1	53.2	70.3	72.8
Jun-15	51.5	61.7	71.4	67.3	71.6	68.1	65.2	51.6	69.4	73.8
Jul-15	50.7	60.9	70.8	66.4	72.5	69.1	66.1	50.9	70.4	74.3
Aug-15	51.8	61.7	71.9	67.5	73.6	70.5	67.2	52.1	71.5	75.4
Sep-15	50.7	60.6	70.8	66.4	72.5	69.4	66.1	50.9	70.4	74.3
Oct-15	49.6	59.9	69.7	65.3	71.4	68.3	64.9	49.2	69.8	76.6
Nov-15	50.9	60.1	70.4	66.7	72.8	69.5	65.6	50.9	70.2	77.3
Dec-15	51.4	61.5	71.3	67.2	73.4	70.2	66.1	51.7	72.1	78.6
Jan-16	52.3	62.4	72.2	68.1	74.3	71.1	67.8	52.6	73.5	79.4
Feb-16	53.4	63.5	73.3	69.2	75.4	72.2	68.9	53.7	74.6	80.5
Mar-16	51.3	61.4	72.2	67.1	73.2	70.1	66.8	51.6	72.5	78.4
Min.	**49.6**	**59.9**	**69.7**	**65.3**	**71.4**	**68.1**	**64.9**	**49.2**	**69.4**	**72.8**
Max.	**53.5**	**64.1**	**73.3**	**69.2**	**75.4**	**72.2**	**68.9**	**60.9**	**74.6**	**80.5**
Avg.	**51.6**	**61.7**	**71.7**	**67.3**	**73.0**	**69.9**	**66.5**	**52.4**	**71.4**	**76.2**

STACK MONITORING RESULTS WITH RESPECT TO BLAST FURNACE-II (APRIL, 2015 to MRACH, 2016)

onth	Stack attached to Dedusting System			Stack attached to Stove			Stack attached to Iron ore fine dust collecting system			Stack attached to Coke fine Building Dust Collecting System		
	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx
	mg/Nm^3	PPM	PPM	mg/Nm^3	PPM	PPM	mg/Nm^3	PPM	PPM	mg/Nm^3	PPM	PPM
or-15	68.0	NA		4.0	NA		4.0	NA		6.0	NA	
ay-15	59.0			2.0			6.0			8.0		
un-15	51.0			3.0			5.0			7.0		
ul-15	58.0			2.0			6.0			8.0		
ug-15	47.0			3.0			5.0			7.0		
ep-15	40.0			2.0			4.0			5.0		
ct-15	46.0			4.0			5.0			6.0		
ov-15	42.0			2.0			4.0			7.0		
ec-15	40.0			3.0			5.0			6.0		
an-16	27.0			2.0			4.0			5.0		
eb-16	34.0			3.0			5.0			6.0		
ar-16	40.0			2.0			4.0			7.0		
Min.	**27.0**	NA		**2.0**	NA		**4.0**	NA		**5.0**	NA	
Max.	**68.0**			**4.0**			**6.0**			**8.0**		
Avg.	**46.0**			**2.7**			**4.8**			**6.5**		

NA- Not Applicable

Annexure-III

STATUS OF GREENBELT & PLANTATIONS

The key objective to strengthen greenbelt in and around the plant premises to minimize the pollution load and to maintain ecological balance including sustainable development.

The following species of trees, shrubs & herbs have been planted in and around the plant premises at different location of ***IPU-Samaghogha of JINDAL SAW LIMITED***. Seasonal flowers of various varieties have also been planted to enhance aesthetic view.

TREES:

Bottle Brush, Peltaphorum, Neem, Arjun, Saru, Ficus Nuda, Cordia, Cassia, Chiku, Khirni, *Prosopis cineraria* (Khezri), Ficus Benjamina, Ficus Golden, Ficus Starlight, Accassia, Jakranda, Bahunia, Ravinia Palm, Foxtail Palm, Jamun, Badam, Ashok, Coconut, Arica Palm, Fan Palm, Anar, Phonix Palm, Guava, Amla, Spathodia, Shisham, Travellers Palm, Bhismarkia Palm, Alastonia, Amaltas, Champa, Karanj, Fishtail Palm, Date Palm, & Washingtonia Palm.

SHRUBS:

Hamelia, Duranta, Acalypha, Tabermontana (Chandni), Lantana, Euphorbia, Madhukamini, Cassiabiflora, Tecoma Capensis, Halmskodia, Dracena, Arelia, Aglonema, Diffenbachia, Petra Volublis, Clematis, Clerodendron, *Quisqualis Indica*, Begnonia Venusta, Gardenia, Manihot, Ixora, Beloprane, Iresine Red, Harsingar, Hibiscus, Ficus Panda, Thuja, Calenchu,Calliandra, Allamanda, Kadvi Mehendi , Croton, Bougainvillea, Rose, Galphamia, Kaner, Nicdivia,*Caesalpinnia pulchirema* , *Lagerstromea indica*, *Nyctanthes arbotritis*, *Jasminum sambak*, *Jasminum humile*, Scheflerra & Yucca,

HERBS:

Strawberry, Vinca, Garbera, Rohea Spathia, Canna Dwarf, Spathyphyllum, Daisy, Asparagus, Fern, Chlorophytum, Chrysenthemum, Silver Dust, Kochea, Marigold, Cosmos, Ageratum, Partulaca, Gompherena & Spider Lily,

Details of Plantations Carried Out During the period of April -2015 to March-2016

Month	No. of Saplings	Species Planted	Location
April-15	142	Nicdivia, Euphorbia & Ficas Panda	VIP Guest House & Pot Plantation
May-15	Nil	---	Land Development activity
June-15	700	Tamarind, Saru, Peltaphorum, Jamun, Mango, Karanj, Cordia, Neem, Bottle Palm & Erica Palm	Samaghogha village, Samaghogha village road side, Bhujpur Village, RMHS boundary wall, Spiral-2 Crane maintenance area, New colony near gate, Coating Plant near LPG area, Spiral-2 pump house & Children Park.
July-15	102	Champa, Badam & Gultora	RO plant, Vikaspuram,Spiral-2, New Colony Electrical Control Room
Aug-15	3760	Coconut, Ber, Anar, Mango, Peltaphorum, Sisam, Ficas Nuda, Kaner Red, Mehendi, Croton, Arelia, Chiku, Desi Rose, Bottle Palm,Bougainvillea	Spiral-1 Lawn, Spiral-2 Crane maintenance area, Cafeteria, Vikaspuram, Chairman Bungalow, Sinter Plant, Outside of Gate no. 2, Near Club House, Fountain Garden, Admin area & Spiral-2 pump house.
Sep-15	1311	Bottle Palm, Peltaphorum, Coconut, Ber, Ficas Nuda, Kaner Red , Karanj, Sisam, Saru, Bougainvillea & Mehendi	Vikas Puram, Spiral-2 Crane maintenance area, Outside of plant, New Coating area, Chairman Bungalow
Oct-15	9157	Coconut, Ber, Anar, Mehendi Kadvi, Mango Kesar, Kaner Red, Arelia, Erica Palm, Desi Rose, English Rose, Ixora Red, Ixora Pink, Ficas Panda, Bougainvillea, Kaner Yellow, Hibiscas Red, Acalypha, Tecoma, Song of India, Chandni, Hamelia Dwarf.	Chairman Bungalow, Chairman Bungalow to HR building through fencing line, GM guest house to old colony corner, E & I Control Room(Colony), Admin Block, Water Treatment Plant, Outside temple, Cafeteria, JCO road & old colony boundary wall, Inside temple, Admin Block, VIP Guest House, New Coating Plant, Spiral-2, Dispatch road etc.
Nov-15	13203	Kadvi Mehendi, Ficas Nuda, Kaner Red, Ixora Red, Ixora Pink, Ficas Panda, Bougainvillea, Kaner Yellow,Hibiscas Red, Acalypha, Tecoma, Madhumalti, Chandni, Hamelia Dwarf, Cordia, Schefflera, Euphorbia Pink, Phoenix Palm, Ashoka, Zed Plants, Crysenthimum, Champa, Nicdivia,	Spiral-1, DISP trolley line, BF lab (Road side), Mould shop (Road side), SDP-2 trolley line, CPP (near LDO tank), New coating plant, old colony to Env. office road side, SDP-2 (Behind canteen), Cricket Ground, Spiral-2 pump house, Boundary Wall (Samaghogha to Gate no.2), Spral-2 (Back side of mm workshop), Fencing line (Diesel Pump), Chairman Bungalow, Savitrivihar, Admin Block.
Dec-15	5299	Tamarind, Saru, Peltaphorum, Jamun, Mango, Karanj, Cordia, Neem, Bottle Palm & Erica Palm	Samaghogha village, Samaghogha village road side, Bhujpur Village, RMHS boundary wall, Spiral-2 Crane maintenance area, New colony near gate, Coating Plant near LPG area, Spiral-2 pump house & Children Park.
Jan-16	177	Arelia, Euphorbia, Nicdivia, Champa, Ashoka	RO plant, Vikaspuram,Spiral-2, New Colony Electrical Control Room
Feb-16	--	--	--
Mar-16	9786	Ixora Pink, Bougainvillea, Tecoma, Kaner Yellow, Ficus Nuda, Kadvi	SDP-2, GM guest House, Sinter Plant, Coating Plant,Spiral-2, Water Treatment Plant, Back Side

		Mehebdi, Chiku, Mehendi, Guava, Banana, Ficas Panda, Ixora Red, Cordia, Nicdivia, Hibiscas, Phoenic Palm,	of Environment Office, Switch Yard, Temple area,Gate no.-2, Samaghogha Gram Panchayat, Cricket Ground, Nace Lab area.
Total	**43637**		

Numbers of total plantations as on dated 31st March, 2015 : **121875**
Number of saplings planted during - 1st April,15 to 31st March -16 : **43637**
Total Numbers of Plants : **165512**

Annexure-IV

CSR EXPENSES FOR THE PERIOD OF APRIL, 2015 TO MARCH, 2016 AS ACTIVITIES CARRIED OUT BY JINDAL SAW LIMITED, IPU-SAMAGHOGHA-GUJARAT

Nature of Activities	Whom to paid	Amount (Rs.)
Medical Expenses	Medical camps, Mobile dispensaries, General Medical Treatment in OPD & Indoor, Blood Donation Camp & Medicines etc.	3191331.00
Expenses incurred under Education program	Salary paid to teachers	222699.00
	Annual Sports activities at Samaghogha School	15000.00
Environmental Expenses	Incurred by the company	15240804.00
Social Welfare Expenses	Animal Husbandry - Grass distribution at Samaghogha & Bhujpur	1880103.00
	Salary paid to security at Bhujpur village	104000.00
	Donation to Samajwadi at Bhujpur	200000.00
	Infrastructure Development – Construiction of Overhead tank at Samaghogha Village	2,45,010.00
Other Expenses	Donation for Navaratri Mahotsav at Mundra	5000.00
	Misc. Expenses related to CSR	556010.00
Total		**21659957.00**

JINDAL

JINDAL SAW LTD.

JSL/ENV/F-12/GPCB/2015-16 **Date: - 30.07.2016**

To,
Member Secretary
Gujarat Pollution Control Board
Paryavaran Bhavan
Sector – 10 A
Gandhinagar – 382010

Sub: Environmental Statement (Form-V) for Pipe Plants (DISP / SDP, SDP-2, JCO, Spiral-1 & 2) (PCB ID-18036) of Jindal Saw Limited for the year 2015-16.

Ref:-*Pipe Plant (PCB ID-18036, Consent Order No- AWH-68536 issued on dated 27.02.2015 & AWH-71927 issued on dated 02.07.2015)*

Dear Sir,

This has reference to the above; we are submitting herewith **Environmental Statement (Form-V)** for **Pipe Plant** of **Jindal Saw Limited,** located at Survey No.- 294/1,324,286,287,336/1,294/2, 293, 325/1, 288/1, 318, 334/1, 335,336/2, 336/3 Village: Samaghogha, Taluka: Mundra, District: Kutch for the period ***April -2015 to March-2016.***

Kindly acknowledge receipt for the same.

Thanking you

Yours faithfully,

For **JINDAL SAW LTD.**

A.K.Pandey
AGM- Environment

Encls: as above

CC:
Regional Officer
Gujarat Pollution Control Board
Room No. 215-217 Administrative office Building
Second Floor, Kandla Port Trust, Sector-8
Gandhidham, Kutch
Gujarat- 370201

From- V

{See Rule14}

Environmental Statement for the period April 2015 to March 2016

(Pipe Plants GBCB ID: 18036)

Part-A

(i) Name and address of the owner/occupier of the industry operation and process

Mr. H. S. Chaudhary
JINDAL SAW LIMITED
A-1, UPSIDC Industrial Area
Nandgaon Road, Kosi Kalan
District Mathura-281403 (U.P.)

(ii) Industry category primary-(STC code) Secondary-(SIC Code) : **Red**

(iii) Production Capacity:

DI Pipes	**- 25000 MT /Month**
Smaller Dia DI pipes	**-18750 MT/Month**
L SAW Pipes	**- 16667 MT/Month**
H SAW/Spiral Pipes	**- 32500 MT/Month**

(iv) Year of Establishment: **JCO, Spiral Steel Pipes, DISP / SDP -2004**
Spiral Pipes-2007
SDP-2- Dec-2012

(v) Date of last Environment statement submitted: **25.08.2015.**

Part- B

Water and Raw Material Consumption

(i) Water consumption – **m^3/Day**

(i) Process – **NA**
(ii) Cooling- **1338.02**
(iii) Domestic- **NIL**

Name of Products	Process Water Consumption per unit of Product Output	
	During the previous financial year	During the current financial year
DI Pipes, LSAW & HSAW Pipes and Coated Pipes	1.00 KL /MT	**0.94 KL/MT**

(ii) **Raw material consumption-**

Sr. No.	Name of Raw Material	Name of Products	Consumption of raw material per unit of output	
			During the previous financial year(MT/MT)	During the current financial year(MT/MT)
1 (a)	Hot Metal	Small Dia DI Pipes	1.16	**0.95**
	Cement		0.10	**0.10**
	Scrap		0.073	**0.088**
	Washed Silica		0.006	**0.004**
	Fe-Si (Lumps)		0.009	**0.003**
	Fe-Si (Gr)		...	**0.0009**
	Zinc Wire		0.008	**0.007**
	Bitumen		0.005	**0.005**
	Fe-Mn		0.0003	**0.000006**
	Pure Magnesium		0.002	**0.001**
	Pig Iron		...	**0.013**
	Core Paint		...	**0.0007**
	Mould Powder		...	**0.005**
	Innoculent		...	**0.002**
	Sieved Sand		...	**0.157**
1 (b)	Hot Metal	DI Pipes	1.06	**1.03**
	Cement		0.117	**0.095**
	Scrap		0.079	**0.089**
	Washed Silica		0.022	**0.012**
	Fe-Si (Lumps)		0.015	**0.004**
	Fe-Si (Gr)		...	**0.001**
	Zinc Wire		0.006	**0.005**
	Bitumen		0.004	**0.004**
	Fe-Mn		0.002	**0.0004**
	Pure Magnesium		0.002	**0.001**
	Pig Iron		...	**0.006**
	Core Paint		...	**0.0009**
	Mould Powder		...	**0.005**
	Innoculent		...	**0.002**
	Sieved Sand		...	**0.158**
2	Steel Plate	L SAW Pipes	0.995	**1.011**
	Saw Wire		0.0035	**0.0034**
	Flux		0.0049	**0.0046**
	MIG Wire		0.0005	**0.0004**
3	Steel Plate	H SAW Pipes	0.956	**1.016**
	Saw Wire		0.0027	**0.0030**
	Flux		0.0027	**0.0029**
	MIG Wire		0.0003	**0.0004**

Month wise raw material consumption and production details is enclosed as **Annexure-I.**

- Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw material used.

Part – C

Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharge (Mass/Day)	Concentration of pollution in discharges (Mass/Volume)	Percentage of variation from prescribed standards with reasons
(a)Water	**No discharge of treated domestic wastewater, it is being reused for plant cooling, dust suppression & horticulture purposes.**		**Results are well below the permissible limits**
(b) Air	**Monitoring Results (Ambient Air, Stack Emission, Noise Level, and Water & Wastewater Quality) is enclosed as Annexure-II.**		**Results are well below the permissible limits**

Part – D

(As specified under [Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008)]

Hazardous Waste		Total Quantity	
		During the previous financial year.	During the current financial year.
(a) From Process			
(i)	**Zinc Dust**	509.05 (MT)	**586.73 (MT)**
(b) From Pollution Control Facilities			
(i)	**Zinc Dust**	509.05 (MT)	**586.73 (MT)**
(c) Others			
(i)	Discarded Container	6378 (Nos.)	**7821 (Nos.)**
(ii)	Used Oil	51.450 (KL)	**42.63 (KL)**
(iii)	Waste Residue Containing Oil	Nil	**Nil**

From Process- Zinc dust is being generated from ductile iron pipe manufacturing section.

From pollution control facilities: - Zinc dust is being collected through bag filters and stored in earmarked place & sold to authorized recyclers.

Part – E

Solid Waste

Solid Waste	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
(a) From Process	**7295.70 (MT)**	**11204.93 (MT)**
(b) From Pollution Control Facilities	Not Applicable	Not Applicable
(c) (1) Quantity recycled or re-utilized within the unit	**7295.70 (MT)**	**11204.93 (MT)**
(2) Sold	Nil	Nil
(3) Disposed	Nil	Nil

- **From Process: Rejected core / mould sand is being re-used 100% in process through Sand Reclamation Plant** which helps to conserve mineral resources as well as achieve zero generation of solid waste.

Part- F

PLEASE SPECIFIY THE CHARACTERIZATIONS (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of waste.

Zinc Dust, Used Oil and Discarded Drums are being disposed off through authorized recycler.

Part – G

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

1. 100 % of waste water generated from different units is being recycled / re used in process and we are achieving zero discharge.
2. We have installed the sand reclamation plant for reusing rejected core / mould sand and minimize the generation of solid waste.
3. Blast furnace gases are being used in pipe manufacturing process as fuel instead of HSD/ LDO and in turn mitigate air pollution.
4. We are installed multi cyclone with bag filters for collecting zinc dust to increase air pollution control efficiency.

Part – H

Additional measures/ investment proposed for investment proposed for environment protection including abatement of pollution, prevention of pollution.

Efficiency monitoring of air pollution control equipments is being carried out by approved agency on regular basis in order to compliance of conditions stipulated.

PART-I

Any other particulars for improving the quality of the environment.

The followings factors which are directly responsible to maintain pollution levels through continual improvements:

- Certified with IMS (ISO 9001:2008, OHSAS 18001:2007 & ISO 14001:2004) from ***BUREAU VERITAS.***
- Regular environmental monitoring carried out for stack emission, ambient air quality and Noise level reports are submitted to Gujarat Pollution Control Board. All results are within the norms prescribed by the Gujarat Pollution Control Board.
- Periodic maintenance of all pollution control measures.
- Green belt has been developed by covering ***90 acres*** area within plant premises and planted more than ***1.65 lakhs*** saplings. The detail of plantations is enclosed as *Annexure-III.*
- Regular housekeeping to reduce fugitive emissions.
- Regular water sprinkling is being carried out through water tanker for minimizing fugitive emission.
- CSR activities as carried out in the surrounding area along with cost incurred during ***2015-2016*** is enclosed as ***Annexure –IV***

(Authorized Signatory)

Name: **V. Rajasekaran**
Designation: **Vice President**

Address: **JINDAL SAW LIMITED**
(IPU- Samaghogha)
Village: Samaghogha
Taluka: Mundra
Dist.: Kutch
Gujarat-370415

Annexure – I

Raw Material Consumption (MT)

(i) Ductile Iron Pipes

Sr. No.	Raw Materials	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Total
1	Hot Metal	20222.90	24076.25	24076.26	22847.12	24857.61	25610.68	26868.94	25651.90	25348.36	27298.67	26096.44	27669.03	**300624.16**
2	Scrap	1574.80	1652.60	1662.60	1715.55	2249.86	2149.07	1926.64	1965.20	2173.95	2248.67	3274.30	3450.12	**26043.36**
3	Fe Si (Lumps)	270.49	122.74	122.74	114.53	58.56	37.76	63.58	52.25	52.58	69.83	62.92	83.68	**1111.66**
4	FeMn	18.39	6.35	6.36	32.01	6.77	3.22	1.30	2.69	11.15	20.47	6.08	9.02	**123.81**
5	FeSi (Gr)	34.96	29.32	29.32	26.60	22.97	19.28	16.04	12.27	11.65	23.87	25.52	42.41	**294.21**
6	Pig Iron	1309.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.15	0.00	182.00	206.00	**1702.25**
7	Pure Mg	32.33	28.76	28.76	25.94	28.16	31.06	33.07	32.07	31.89	39.47	29.33	30.31	**371.15**
8	Washed Silica Sand	563.16	943.33	943.33	169.68	142.38	238.26	291.56	280.75	53.48	0.00	0.00	0.00	**3625.93**
9	Core Paint	22.66	22.64	22.64	25.39	26.69	25.92	10.61	25.58	26.18	28.90	27.36	10.80	**275.37**
10	Mould Powder	102.45	115.40	115.40	127.25	129.70	114.55	117.68	123.08	118.03	126.33	135.19	123.03	**1448.09**
11	Innoculent	35.10	43.60	43.60	45.75	38.45	35.60	31.45	47.18	52.13	63.65	60.49	54.18	**551.18**
12	Zinc Wire	102.53	147.80	147.80	147.56	129.95	142.05	141.74	109.41	100.06	106.23	97.49	100.65	**1473.27**
13	Sieved Sand	3037.38	4005.42	4005.42	4373.61	3897.94	3865.67	3700.19	3839.08	3490.51	4117.70	3706.81	4088.86	**46128.59**
14	Cement	2146.20	2803.89	2803.69	2547.76	2330.03	2483.94	2380.91	2675.18	2206.89	2529.00	24.16.95	2677.38	**27584.87**
15	Bitumen	86.42	86.63	86.63	86.25	89.21	103.29	95.94	93.89	89.67	102.53	84.43	101.07	**1105.96**
	Total	**29558.87**	**34084.73**	**34094.55**	**32285.0**	**34008.28**	**34860.35**	**35679.65**	**34910.53**	**33771.68**	**36775.32**	**33788.36**	**38646.54**	**412463.86**

(ii) Small Dia Ductile Iron Pipes Plant (MT)

Sr. No.	Raw Materials	Apr -15	May-15	Jun -15	Jul-15	Aug -15	Sep-15	Oct-15	Nov -15	Dec-15	Jan-16	Feb-16	Mar -16	Total
1	Hot Metal	6740.20	8274.87	6152.79	9606.65	11.41	11653.64	10727.68	11028.51	12540.89	12019.88	11772.11	12165.15	**112693.78**
2	Scrap	496.90	569.00	455.50	683.00	860.00	864.30	837.60	896.20	948.20	869.50	1488.95	1484.59	**10453.74**
3	Fe Si (Lumps)	66.81	12.63	11.01	25.70	32.48	32.46	31.40	28.32	27.08	33.47	15.40	27.76	**344.52**
4	FeMn	0.49	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.71**
5	FeSi (Gr)	8.85	8.46	6.62	11.04	14.97	12.08	9.93	5.07	5.14	5.14	5.53	11.82	**104.65**
6	Pig Iron	1341.70	0.00	118.40	14.20	0.00	31.00	31.40	0.00	0.00	0.00	0.00	0.00	**1536.70**
7	Pure Mg	10.33	10.67	8.22	12.44	13.55	14.44	14.37	17.50	17.92	16.83	16.46	17.83	**170.56**
8	Washed Silica Sand	41.58	42.17	33.14	45.26	57.12	58.24	52.44	53.30	62.52	0.00	0.00	0.00	**445.76**
9	Core Paint	5.41	5.48	4.31	5.88	7.43	7.57	6.82	6.93	8.13	7.37	7.60	8.65	**81.57**
10	Mould Powder	34.10	33.70	29.40	39.80	47.20	53.70	57.60	52.90	57.70	48.20	41.66	56.30	**552.26**
11	Innoculent	9.70	13.10	14.10	16.65	20.70	19.35	13.45	16.55	13.80	13.05	18.23	27.10	**195.78**
12	Zinc Wire	56.36	61.32	70.61	58.54	81.76	75.42	73.22	70.63	73.87	63.89	46.84	54.49	**786.92**
13	Sieved Sand	1249.27	1277.14	1321.98	1825.58	1479.10	1684.66	1462.62	1856.34	1655.12	1646.52	1402.46	1704.86	**18565.66**
14	Cement	886.83	886.81	670.83	803.20	1088.97	1018.00	957.80	1215.33	1048.46	1015.50	858.11	1119.98	**11569.82**
15	Bitumen	42.21	40.04	27.58	43.55	57.10	61.00	56.02	57.30	63.73	62.27	43.77	55.33	**609.88**
	Total	**10990.73**	**11235.38**	**8924.49**	**13191.72**	**3771.78**	**15585.86**	**14332.35**	**15304.87**	**16522.56**	**15801.61**	**15717.13**	**16733.86**	**158112.33**

(iii) L SAW Steel Pipes - JCO Plant

Month	Steel Plate	Saw Wire	Flux	MIG Wire
Apr-15	0	0	0	0
May-15	0	0	0	0
Jun-15	1214.058	4.486	7.735	0.767
Jul-15	0	0	0	0
Aug-15	2796.188	10.498	13.000	0.868
Sep-15	9245.832	30.310	40.640	3.680
Oct-15	0	0	0	0
Nov-15	0	0	0	0
Dec-15	0	0	0	0
Jan-16	7532.902	25.446	34.126	3.419
Feb-16	0	0	0	0
Mar-16	0	0	0	0
Total	**20788.98**	**70.74**	**95.501**	**8.734**

(iv) H SAW (Spiral) Steel Pipes – (Spiral Plant-1)

Month	Steel Plate/Coil (MT)	Saw Wire (MT)	Flux (MT)	MIG Wire (MT)
Apr-15	0	0	0	0
May-15	0	0	0	0
Jun-15	0	0	0	0
Jul-15	0	0	0	0
Aug-15	0	0	0	0
Sep-15	0	0	0	0
Oct-15	450.018	8.494	7.098	1.321
Nov-15	0	0	0	0
Dec-15	1282.578	6.104	6.993	1.293
Jan-16	0	0	0	0
Feb-16	293.61	1.3	1.553	0.25
Mar-16	0	0	0	0
Total	**2026.206**	**15.898**	**15.644**	**2.864**

(v) H SAW (Spiral) Steel Pipes – (Spiral Plant-2)

Month	Steel Plate/Coil (MT)	Saw Wire (MT)	Flux (MT)	MIG Wire (MT)
Apr-15	16716.346	52.152	57.095	6.815
May-15	23505.814	76.753	78.787	9.575
Jun-15	17151	42.187	34.829	4.969
Jul-15	14011	33.17	19.441	4.011
Aug-15	0	0	0	0
Sep-15	0	0	0	0
Oct-15	2179.37	7.266	8.719	1.171
Nov-15	2764.367	9.633	11.017	1.05
Dec-15	13.761	0.204	0.229	0.023
Jan-16	14095.476	39.804	43.805	3.806
Feb-16	13036.644	36.909	40.726	3.726
Mar-16	5333.237	14.558	14.800	1.545
Total	**108807.015**	**312.636**	**309.448**	**36.691**

Detail of Production (MT)

Month	Ductile Iron Pipes	Small Dia Ductile Iron Pipe	LSAW Pipes	H SAW Pipes		
				Spiral-1	Spiral-2	Total
Apr-15	20046	7831	0.00	0.00	16172.00	16172
May-15	23584	7519	0.00	0.00	23013.63	23013.63
Jun-15	22828	5921	1173.316	0.00	16954.00	0.00
Jul-15	23598	8347	0.00	0.00	14398.00	14398
Aug-15	23757	10719	2217.00	0.00	0.00	0.00
Sep-15	24340	10663	9785.583	0.00	0.00	0.00
Oct-15	24455.2	9731	0.00	433.61	2045.38	2478.99
Nov-15	24068	10751	0.00	0.00	2274.25	2274.25
Dec-15	24376	11860	0.00	1272.83	382.10	1654.93
Jan-16	25418	11597	7388.205	0.00	13375.0	13375
Feb-16	25392	11104	0.00	285.51	12902.31	13187.82
Mar-16	29289	12292	0.00	0.00	5562.75	5562.75
Total	**291151.2**	**118335**	**20564.104**	**1991.95**	**107079.42**	**109071.37**

Detail of Water Consumption

Month	Process Cooling
Apr-15	38022
May-15	41793
Jun-15	39480
Jul-15	41824
Aug-15	43028
Sep-15	39819
Oct-15	45549
Nov-15	40850
Dec-15	37293
Jan-16	42204
Feb-16	35923
Mar-16	42592
Total	**488377**

Annexure-II

National Ambient Air Quality Monitoring Results (April-15 to March-16)

Month	Name of Locations														
	Main Gate (NAAQMS-1)					Sinter Plant-1 (NAAQMS-2)					Nr. Workshop Spiral -II (NAAQMS-3)				
	PM 10	PM2.5	SO_2	NO_2	CO**	PM 10	PM2.5	SO_2	NO_2	CO**	PM 10	PM2.5	SO_2	NO_2	CO**
	Average Values (Unit:- µg/m^3)														
Apr-15	64.7	41.2	3.7	21.1		69.2	47.2	4.1	20.7		56.2	35.2	3.8	18.2	
May-15	64.0	18.5	4.8	20.5		68.5	16.5	4.7	20.0		51.5	15.5	3.7	18.2	
Jun-15	56.0	20.0	4.1	19.6		67.5	21.5	4.9	18.7		44.5	15.5	3.1	17.4	
Jul-15	41.0	16.5	3.2	16.2		49.0	23.0	3.9	16.4		33.5	17.0	2.5	13.9	
Aug-15	49.9	21.3	4.1	18.3		55.5	24.5	4.5	16.7		38.1	17.3	2.7	14.8	
Sep-15	47.3	20.9	3.3	17.1	BDL	49.3	23.2	3.3	15.3	BDL	32.6	14.1	2.0	14.5	BDL
Oct-15	64.7	41.2	3.7	21.1		69.2	47.2	4.1	20.7		56.2	35.2	3.8	18.2	
Nov-15	64.0	18.5	4.8	20.5		68.5	16.5	4.7	20.0		51.5	15.5	3.7	18.2	
Dec-15	56.0	20.0	4.1	19.6		67.5	21.5	4.9	18.7		44.5	15.5	3.1	17.4	
Jan-16	41.0	16.5	3.2	16.2		49.0	23.0	3.9	16.4		33.5	17.0	2.5	13.9	
Feb-16	49.9	21.3	4.1	18.3		55.5	24.5	4.5	16.7		38.1	17.3	2.7	14.8	
Mar-16	47.3	20.9	3.3	17.1		49.3	23.2	3.3	15.3		32.6	14.1	2.0	14.5	
Min	**41.0**	**16.5**	**3.2**	**16.2**		**49.0**	**16.5**	**3.3**	**15.3**		**32.6**	**14.1**	**2.0**	**13.9**	
Max	**64.7**	**41.2**	**4.8**	**21.1**	BDL	**69.2**	**47.2**	**4.9**	**20.7**	BDL	**56.2**	**35.2**	**3.8**	**18.2**	BDL
Avg.	**53.8**	**23.1**	**3.9**	**18.8**		**59.8**	**26.0**	**4.2**	**18.0**		**42.7**	**19.1**	**3.0**	**16.2**	

BDL= Below detectable limit

Ambient Air Quality Monitoring Results (April-15 to March-16)

onth	Name of Locations																					
	Old Colony (AAQ-1)						Nr. Rain Water Harvesting Pond (AAQ-2)						LPG Yard (AAQ-3)						Between Sinter & Spiral (AAQ-4)					
	Unit- µg/m3																					
	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*
or-15	46.0	27.0	3.8	14.4			41.0	24.0	4.5	17.3			56.0	35.0	3.1	12.2			49.0	31.0	3.9	11.4		
ay-15	39.0	16.0	2.9	13.5			48.0	19.0	3.7	16.4			41.0	18.0	4.1	14.1			43.0	14.0	4.8	12.3		
un-15	28.0	11.0	1.8	12.4			56.0	22.0	3.2	15.7			48	20.0	3.5	13.6			51	18	4.3	11.8		
ul-15	32.0	16.0	1.2	13.8			64.0	26.0	2.5	16.4			53.0	23.0	4.4	14.5			59.0	21.0	3.6	12.7		
ug-15	37.0	11.0	1.7	12.6			60.0	23.0	1.9	15.2			57.0	26.0	3.8	13.7			52.0	18.0	2.9	11.8		
ep-15	28.0	13.0	1.1	9.7	BDL	ND	49.0	21.0	2.3	13.1	BDL	ND	51.0	24.0	3.1	12.6	BDL	ND	47.0	16.0	1.8	10.7	BDL	ND
ct-15	25.0	10.0	1.6	8.6			34.0	14.0	2.9	11.9			39.0	20.0	2.7	10.5			43.0	13.0	2.4	9.5		
ov-15	29.0	13.0	1.2	7.5			38.0	16.0	3.5	10.8			44.0	23.0	1.2	9.4			48.0	15.0	3.1	8.9		
ec-15	33.0	15.0	1.8	6.9			43.0	19.0	2.6	11.5			39	21.0	3.5	10.6			36	13	2.8	9.5		
an-16	24.0	11.0	2.3	7.6			48.0	23.0	3.5	12.6			43.0	18.0	4.2	11.5			31.0	15.0	3.7	10.4		
eb-16	29.0	13.0	1.8	8.3			43.0	19.0	2.6	11.5			48.0	22.0	3.4	10.3			36.0	17.0	3.1	9.5		
ar-16	24.0	11.0	1.2	7.2			37.0	15.0	2.2	8.4			48.0	20.0	2.9	9.2			40.0	19.0	2.5	8.4		
Min.	**24.0**	**10.0**	**1.1**	**6.9**			**34.0**	**14.0**	**1.9**	**8.4**			**39.0**	**18.0**	**1.2**	**9.2**			**31.0**	**13.0**	**1.8**	**8.4**		
Max.	**46.0**	**27.0**	**3.8**	**14.4**	BDL	ND	**64.0**	**26.0**	**4.5**	**17.3**	BDL	ND	**57.0**	**35.0**	**4.4**	**14.5**	BDL	ND	**59.0**	**31.0**	**4.8**	**12.7**	BDL	ND
Avg.	**31.2**	**13.9**	**1.9**	**10.2**			**46.8**	**20.1**	**3.0**	**13.4**			**47.3**	**22.5**	**3.3**	**11.9**			**44.6**	**17.5**	**3.2**	**10.6**		

onth	Labour Colony (AAQ-5)						New Colony (AAQ-6)						VIP Guest House (AAQ-7)						Weigh Bridge No.-1 (AAQ-8)					
	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*
	Unit-µg/m3																							
r-15	65.0	49.0	3.6	11.4			61.0	44.0	12.2	10.2			67.0	40.0	2.9	8.7			71.0	48.0	2.1	8.5		
y-15	49.0	12.0	3.1	12.3			55.0	18.0	3.9	11.5			52.0	11.0	3.1	9.3			59.0	15.0	2.4	10.5		
n-15	40.0	14.0	2.6	11.1			44.0	12.0	2.8	10.6			37.0	16.0	2.0	9.9			64.0	24.0	2.8	12.8		
l-15	45.0	19.0	2.1	13.4			50.0	17.0	3.3	11.6			42.0	24.0	2.9	3.5			68.0	29.0	4.8	13.9		
g-15	49	16	2.8	12.1			42	13.0	4.1	10.6			46.0	22.0	2.2	9.5			63.0	27.0	5.3	14.2		
p-15	42	19	3.4	11.2	BDL	ND	54	27	3.9	10.1	BDL	ND	38	15	3.8	11.9	BDL	ND	60	29	4.2	13.8	BDL	ND
t-15	45.0	16.0	3.9	10.1			41.0	23.0	2.1	9.1			35.0	21.0	3.3	12.3			38.0	18.0	4.9	14.4		
v-15	40.0	19.0	4.8	9.7			35.0	26.0	2.9	8.3			31.0	24.0	3.7	11.2			42.0	21.0	5.5	13.2		
c-15	46.0	23.0	4.1	10.7			30.0	20.0	2.2	9.1			40.0	18.0	2.1	12.6			48.0	24.0	4.9	14.7		
n-16	40.0	19.0	5.2	11.8			35.0	22.0	3.4	10.2			33.0	14.0	4.2	13.7			54.0	20.0	6.1	15.8		
b-16	44	21	4.5	10.9			31	18.0	2.8	11.4			37.0	16.0	3.5	14.5			50.0	24.0	7.4	16.9		
r-16	39	18	3.8	9.8			35	16	2.4	10.3			42	21	2.8	13.4			55	22	8.5	15.8		
in.	**39.0**	**12.0**	**2.1**	**9.7**			**30.0**	**12.0**	**2.1**	**8.3**			**31.0**	**11.0**	**2.0**	**3.5**			**38.0**	**15.0**	**2.1**	**8.5**		
ax.	**65.0**	**49.0**	**5.2**	**13.4**	BDL	ND	**61.0**	**44.0**	**12.2**	**11.6**	BDL	ND	**67.0**	**40.0**	**4.2**	**14.5**	BDL	ND	**71.0**	**48.0**	**8.5**	**16.9**	BDL	ND
vg.	**45.3**	**20.4**	**3.7**	**11.2**			**42.8**	**21.3**	**3.8**	**10.3**			**41.7**	**20.2**	**3.0**	**10.9**			**56.0**	**25.1**	**4.9**	**13.7**		

Below Detectable Limit
ot Detectable

FUGITIVE EMISSION RESULTS (APRIL-2015 TO March-16)

Name of Locations

Unit- µg/m3

Months	RMH Junction House (A-1)					RMH Stock House (A-2)					Sinter RMH Yard (A-3)					Sinter 2 Ground Hopper (A-4)					DISP CCM Area (A-5)					Sinter-1 Main to PMD (A-6)				
	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*
Apr-15	1384	6	29			1987	6	30			2234	7	27			1241	7	26			915	7	14			1428	6	22		
May-15	972	7	27			1497	6	28			1974	8	25			619	8	24			791	9	32			1428	8	24		
Jun-15	1057	8	26			1564	8	28			1813	9	24			789	7	23			597	10	33			1676	9	25		
Jul-15	1341	9.5	26.3			1720	8.9	27.6			2104	10.3	25.1			931	8	24			668	11	31			1896	11	28		
Aug-15	1420	10	27			1922	10	29			2319	12	27			1013	9	24			712	12	33			2015	11	29		
Sep-15	1597	12	26	BDL	ND	2109	11	27	BDL	ND	1915	13	26	BDL	ND	1234	9	23	BDL	ND	623	13	31	BDL	ND	2254	10	28	BDL	ND
Oct-15	1263	12.6	27.9			1479	11.8	28.5			1135	13.7	26.7			732	10.3	24.2			516	14.4	31.5			924	11.1	29.4		
Nov-15	1121	11.5	26.8			1302	10.7	27.4			1024	12.6	25.6			617	9.2	23.1			420	13.1	30.4			807	10.5	28.3		
Dec-15	1328	12.7	25.6			1211	11.9	26.3			1154	13.8	24.7			764	10.5	21.8			512	14.6	29.1			992	11.2	27.2		
Jan-16	1482	13.8	26.7			1310	12.7	27.2			1246	14.9	25.8			855	11.6	22.9			608	15.7	28.4			1081	12.3	26.1		
Feb-16	1381	12.9	25.8			1243	11.8	26.3			1108	13.7	24.9			746	10.7	21.6			513	14.8	27.5			950	11.4	25.2		
Mar-16	1457	13.8	26.7			1534	12.7	27.2			1211	14.6	25.8			920	11.6	22.5			619	15.7	28.4			1347	12.3	26.1		
Min	**972**	**6**	**26**			**1211**	**6**	**26**			**1024**	**7**	**24**			**617**	**7**	**22**			**420**	**7**	**14**			**807**	**6**	**22**		
Max	**1597**	**14**	**29**	BDL	ND	**2109**	**13**	**30**	BDL	ND	**2319**	**15**	**27**	BDL	ND	**1241**	**12**	**26**	BDL	ND	**915**	**16**	**33**	BDL	ND	**2254**	**12**	**29**	BDL	ND
Avg.	**1317**	**11**	**27**			**1573**	**10**	**28**			**1603**	**12**	**26**			**872**	**9**	**23**			**625**	**13**	**29**			**1400**	**10**	**27**		

BDL - Below Detectable Limit
ND= Not Detectable

Month	Ambient Air Quality Monitoring with Respect to Noise (April-2015 to March-2016)													
	NOISE LEVELS [db (A]													
	Admin Building		Old Colony		Near LPG Yard		Near New Colony (School)		Near SDP-2		Near Coating Plant		Near Gate No.2	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Apr-15	50.3	46.3	44.2	42.5	65.3	59.8	46.8	42.7	65.2	61.6	61.3	62.9	62.5	58.4
May-15	49.5	44.2	44.9	40.6	60.2	56.1	45.9	41.9	64.8	60.4	64.1	61.6	63.9	57.1
Jun-15	48.5	44.3	42.3	38.2	58.6	54.5	43.7	39.1	63.9	59.4	63.9	60.1	59.8	54.2
Jul-15	47.2	43.2	41.5	37.1	57.3	53.6	42.5	38.2	62.1	58.5	61.8	59.2	58.6	53.3
Aug-15	46.1	42.1	40.4	36.8	56.2	52.4	41.4	37.1	60.9	57.4	61.1	58.1	57.5	52.4
Sep-15	44.9	40.8	39.3	35.7	55.1	51.3	40.3	36.5	59.8	56.3	60.2	56.9	56.4	51.3
Oct-15	43.8	39.7	38.2	34.6	53.9	50.2	39.2	35.4	57.9	55.2	59.1	54.8	55.3	50.2
Nov-15	42.7	38.6	37.1	33.5	52.8	49.1	38.1	34.3	56.8	54.1	57.9	53.7	54.2	49.1
Dec-15	43.6	39.5	38.3	34.4	53.7	50.2	39.2	35.2	57.7	55.3	58.6	54.6	55.1	50.9
Jan-16	44.5	40.4	39.2	35.3	44.6	51.1	40.1	36.1	58.6	56.2	59.5	55.5	58.1	51.8
Feb-16	45.6	41.5	40.3	36.4	55.7	52.2	41.2	37.2	59.7	57.3	60.6	50.6	59.2	52.9
Mar-16	43.5	39.4	38.2	34.3	53.6	50.1	39.1	35.1	57.6	55.2	58.5	54.5	57.1	50.8
Min.	**42.7**	**38.6**	**37.1**	**33.5**	**44.6**	**49.1**	**38.1**	**34.3**	**56.8**	**54.1**	**57.9**	**50.6**	**54.2**	**49.1**
Max.	**50.3**	**46.3**	**44.9**	**42.5**	**65.3**	**59.8**	**46.8**	**42.7**	**65.2**	**61.6**	**64.1**	**62.9**	**63.9**	**58.4**
Avg.	**45.9**	**41.7**	**40.3**	**36.6**	**55.6**	**52.6**	**41.5**	**37.4**	**60.4**	**57.2**	**60.6**	**56.9**	**58.1**	**52.7**

MONTH	Near Sinter Plant-1		Near Sinter Plant-2		Near BF-1		Near BF-2		Near Main Gate Security Office	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Apr-15	67.1	60.3	64.2	62.8	64.5	60.4	66.3	62.9	59.6	47.8
May-15	66.8	60.9	65.1	61.8	65.7	62.9	64.4	52.1	51.6	46.8
Jun-15	65.7	60.1	64.3	60.9	61.9	57.8	61.1	53.5	50.2	45.6
Jul-15	64.7	58.9	63.4	59.8	60.8	56.1	60.1	52.3	49.3	44.7
Aug-15	63.6	57.8	62.3	58.7	59.7	55.7	58.9	51.2	48.2	43.6
Sep-15	62.5	56.7	61.2	57.6	58.6	54.5	57.8	50.1	47.1	42.5
Oct-15	61.4	55.6	60.1	56.5	57.5	53.4	56.7	48.9	54.9	41.4
Nov-15	62.3	54.5	58.9	55.4	56.4	52.3	55.6	47.8	44.8	40.3
Dec-15	61.2	55.4	59.8	56.3	57.3	53.2	56.5	48.7	54.7	41.2
Jan-16	62.1	56.3	60.7	57.2	58.2	54.1	57.4	49.6	46.6	42.1
Feb-16	63.2	57.4	61.8	58.3	59.3	55.2	58.5	50.1	47.3	43.0
Mar-16	61.1	55.3	59.7	56.2	57.2	53.1	56.4	48.6	45.2	41.1
Min.	**61.1**	**54.5**	**58.9**	**55.4**	**56.4**	**52.3**	**55.6**	**47.8**	**44.8**	**40.3**
Max.	**67.1**	**60.9**	**65.1**	**62.8**	**65.7**	**62.9**	**66.3**	**62.9**	**59.6**	**47.8**
Avg.	**63.5**	**57.4**	**61.8**	**58.5**	**59.8**	**55.7**	**59.1**	**51.3**	**50.0**	**43.3**

Work Place Noise Monitoring (April -2015 to March - 2016)

NOISE LEVELS [dB(A)]

Month	Sinter Plant-1				Sinter Plant-2				Blast Furnace -1						Blast Furnace-2		
	Inside Control Room	Inside Mechanical Room	Inside Electrical Room	Inside Plant office	Inside Control Room	Inside Operator Room	Near Proprtioning Building	Near Crusher House	Nr. Stock House	Inside Control Room	Inside Control Room of Cast House	Inside Laboratory	Inside Control Room of Blower House	Inside Control Room of CPP	Inside control room	Nr. Stock House	Control Room of Blower House
Apr-15	44.7	53.9	60.1	55.2	53.5	63.4	65.3	70.2	66.7	49.3	49.8	46.1	61.2	57.4	62.9	65.8	67.5
May-15	41.2	48.2	47.8	50.2	52.6	61.9	64.8	71.7	65.2	48.8	49.1	45.8	59.2	56.9	62.1	66.2	68.4
Jun-15	40.5	46.7	48.6	49.3	51.7	60.8	63.9	70.1	64.8	47.3	48.6	44.5	58.2	55.4	59.2	65.3	66.8
Jul-15	39.4	45.8	47.5	48.7	50.2	59.8	62.8	69.9	65.8	46.2	47.4	42.9	57.1	53.7	57.5	64.9	67.3
Aug-15	40.5	46.9	48.6	49.8	51.3	60.9	63.5	70.4	66.7	47.3	48.5	44.1	58.6	54.8	58.6	66.2	68.4
Sep-15	41.6	47.5	48.1	50.8	50.2	59.8	62.4	69.3	65.6	46.2	47.4	42.9	57.5	53.7	57.5	65.1	67.3
Oct-15	40.5	46.4	46.9	49.7	49.1	58.7	61.3	68.2	64.5	45.1	46.3	41.8	56.4	52.6	56.4	63.9	65.2
Nov 15	41.6	47.5	48.1	50.8	50.5	59.9	63.2	69.4	65.6	46.2	47.8	42.9	57.5	53.7	57.8	65.1	66.7
Dec-15	43.6	49.5	50.2	52.7	51.4	60.8	64.1	70.3	66.8	47.6	48.2	43.8	58.9	54.5	58.7	66.3	67.6
Jan-16	44.8	50.7	51.4	53.9	52.3	61.7	65.5	71.2	67.9	48.7	49.3	44.9	60.1	55.6	59.6	67.2	69.5
Feb-16	45.9	51.8	50.3	55.2	53.4	62.8	66.7	72.3	69.1	49.8	50.4	46.1	61.2	56.7	60.7	68.3	70.6
Mar-16	43.8	49.7	48.2	53.1	51.3	60.7	65.6	70.2	66.9	47.6	48.3	43.9	59.1	54.6	58.6	66.2	68.5
Min.	**39.4**	**45.8**	**46.9**	**48.7**	**49.1**	**58.7**	**61.3**	**68.2**	**64.5**	**45.1**	**46.3**	**41.8**	**56.4**	**52.6**	**56.4**	**63.9**	**65.2**
Max.	**45.9**	**53.9**	**60.1**	**55.2**	**53.5**	**63.4**	**66.7**	**72.3**	**69.1**	**49.8**	**50.4**	**46.1**	**61.2**	**57.4**	**62.9**	**68.3**	**70.6**
Avg.	**42.3**	**48.7**	**49.7**	**51.6**	**51.5**	**60.9**	**64.1**	**70.3**	**66.3**	**47.5**	**48.4**	**44.1**	**58.8**	**55.0**	**59.1**	**65.9**	**67.8**

NOISE LEVELS [dB(A)]

Pipe Plant

Month	Inside control room of Anealling Furnace of DISP	Inside Control Room - Mill area of Spiral Plant-1	Nr. Pipe Cutting Area of Spiral Plant	Inside JCO Plant	Inside DISP Plant	Inside Coating Plant	Nr. CCM SDP-2	Inside control room of Anneling furnace of SDP-2	Nr. Zinc Coating SDP-2	Nr. Mould Shop
Apr-15	53.5	64.1	73.2	67.9	73.5	70.8	67.3	60.9	71.6	72.8
May-15	52.2	62.8	72.9	68.3	72.2	69.5	66.1	53.2	70.3	72.8
Jun-15	51.5	61.7	71.4	67.3	71.6	68.1	65.2	51.6	69.4	73.8
Jul-15	50.7	60.9	70.8	66.4	72.5	69.1	66.1	50.9	70.4	74.3
Aug-15	51.8	61.7	71.9	67.5	73.6	70.5	67.2	52.1	71.5	75.4
Sep-15	50.7	60.6	70.8	66.4	72.5	69.4	66.1	50.9	70.4	74.3
Oct-15	49.6	59.9	69.7	65.3	71.4	68.3	64.9	49.2	69.8	76.6
Nov-15	50.9	60.1	70.4	66.7	72.8	69.5	65.6	50.9	70.2	77.3
Dec-15	51.4	61.5	71.3	67.2	73.4	70.2	66.1	51.7	72.1	78.6
Jan-16	52.3	62.4	72.2	68.1	74.3	71.1	67.8	52.6	73.5	79.4
Feb-16	53.4	63.5	73.3	69.2	75.4	72.2	68.9	53.7	74.6	80.5
Mar-16	51.3	61.4	72.2	67.1	73.2	70.1	66.8	51.6	72.5	78.4
Min.	**49.6**	**59.9**	**69.7**	**65.3**	**71.4**	**68.1**	**64.9**	**49.2**	**69.4**	**72.8**
Max.	**53.5**	**64.1**	**73.3**	**69.2**	**75.4**	**72.2**	**68.9**	**60.9**	**74.6**	**80.5**
Avg.	**51.6**	**61.7**	**71.7**	**67.3**	**73.0**	**69.9**	**66.5**	**52.4**	**71.4**	**76.2**

STACK MONITORING RESULTS WITH RESPECT TO DUCTILE IRON SPUN PIPE PLANT (APRIL, 2015 TO MARCH, 2016)

Stack attached to Common Stack Mg Converter I & II			Stack attached to Mg Converter-III			Stack attached to Anneling Furnace-I			Stack attached to Anneling Furnace-II			Stack attached to Anneling Furnace-III		
PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx
mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm
57.0		6.9	47.0		2.2	38.0	ND	1.1	24.0	ND	2.4	32.0	ND	3.4
51.0		4.8	40.0		2.9	29.0	ND	1.6	20.0	ND	1.9	25.0	ND	2.2
56.0		3.6	35.0		2.3	24.0	ND	6.7	17.0	ND	4.1	20.0	ND	5.2
61.0		2.7	39.0		1.8	18.0	2.9	7.8	14.0	3.8	6.7	24.0	2.4	6.1
66.0		2.2	31.0		1.4	13.0	1.7	6.6	10.0	2.1	5.8	17.0	1.9	6.9
38.0	ND	2.8	43.0	ND	2.1	18.0	2.2	7.5	13.0	2.6	6.7	15.0	2.3	6.2
43.0		2.4	33.0		1.7	15.0	1.8	6.1	10.0	2.3	5.8	12.0	1.6	5.3
48.0		2.9	33.0		2.2	12.0	2.2	6.9	16.0	2.7	6.2	19.0	1.9	5.8
37.0		3.2	26.0		2.8	15.0	2.6	6.1	19.0	3.1	7.2	21.0	2.1	6.5
30.0		2.7	34.0		2.1	11.0	3.2	7.5	14.0	3.8	7.9	17.0	2.9	8.1
37.0		2.1	29.0		1.7	15.0	3.8	8.3	10.0	4.2	8.8	12.0	3.5	7.6
43.0		1.9	34.0		1.4	18.0	3.2	7.5	14.0	3.7	8.1	20.0	4.1	8.5
30.0		**1.9**	**26.0**		**1.4**	**11.0**	**1.7**	**1.1**	**10.0**	**2.1**	**1.9**	**12.0**	**1.6**	**2.2**
66.0	**ND**	**6.9**	**47.0**	**ND**	**2.9**	**38.0**	**3.8**	**8.3**	**24.0**	**4.2**	**8.8**	**32.0**	**4.1**	**8.5**
47.3		**3.2**	**35.3**		**2.1**	**18.8**	**2.6**	**6.1**	**15.1**	**3.1**	**6.0**	**19.5**	**2.5**	**6.0**

Stack attached to Core Cleaning & Dusting-1			Stack attached to Core Cleaning & Dusting-2			Stack attached to Sand Reclamation			Stack attached to Zinc Coating-I			Stack attached to Zinc Coating-II		
PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	Nox	PM	SO2	Nox
mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm
...			43.0		4.2	53.0	ND	ND	16.0			13.0		
40.0		4.1	36.0		4.9	47.0	ND	ND	14.0			17.0		
33.0		4.5	29.0		5.2	42.0	ND	ND	10.0			14.0		
42.0		3.7	34.0	ND	4.5	49.0	3.6	6.5	12.0			15.0		
48.0		3.1	39.0		3.8	38.0	2.9	8.1	14.0			17.0		
40.0		2.8	31.0		3.2	33.0	3.4	9.7	17.0			15.0		
49.0	ND	3.3	38.0		3.9	37.0	4.2	10.9	14.0	NA		11.0	NA	
43.0		3.8	40.0		4.2	31.0	5.3	11.5	16.0			13.0		
37.0		4.3	...			26.0	5.9	12.3	13.0			17.0		
32.0		5.2	41.0		4.6	34.0	6.5	13.4	16.0			13.0		
38.0		4.8	46.0	ND	4.1	39.0	7.2	14.3	18.0			15.0		
31.0		4.2	40.0		3.9	44.0	8.3	15.4	14.0			18.0		
31.0		**2.8**	**29.0**		**3.2**	**26.0**	**2.9**	**6.5**	**10.0**			**11.0**		
49.0	**ND**	**5.2**	**46.0**	**ND**	**5.2**	**53.0**	**8.3**	**15.4**	**18.0**	**NA**		**18.0**	**NA**	
39.4		**4.0**	**37.9**		**4.2**	**39.4**	**5.3**	**11.3**	**14.5**			**14.8**		

A- Not Applicable

ND-Not Detectable

STACK MONITORING RESULTS WITH RESPECT TO DUCTILE IRON SPUN PIPE PLANT (April, 2015 to March, 2016)

Stack attached to Zinc Coating-III			Stack attached to Zinc Coating-IV & V			Stack attached to Barrel Grinding-I			Stack attached to Barrel Grinding-II			Stack attached to Barrel Grinding-III		
PM	SO2	Nox	PM	SO2	Nox	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx
mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3
NR	NA		15.0	NA		...			...			...		
11.0			10.0											
16.0			13.0											
18.0			16.0											
16.0			12.0											
19.0			10.0											
15.0			8.0											
10.0			6.0											
...			9.0											
14.0	NA		11.0											
17.0			13.0											
15.0			11.0											
10.0	NA		**6.0**	NA		...			...			...		
19.0			**16.0**											
15.1			**11.2**											

Stack attached to Barrel Grinding-IV & V			Stack attached to Core Shop-I			Stack attached to Core Shop-II			Stack attached to Core Shop-III			Stack attached to Core Shop-IV		
PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx
mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3
			21.0	ND	ND	33.0	ND	ND	29.0	ND	ND	38.0	ND	ND
			27.0	ND	ND	23.0	ND	ND	34.0	ND	ND	30.0	ND	ND
			20.0	3.2	1.4	27.0	ND	ND	30.0	2.7	1.0	24	3.5	1.8
			23.0	2.4	1.8	29.0	1.9	2.3	21.0	2.1	1.3	32.0	2.9	1.5
			28.0	3.1	1.2	22.0	2.5	1.9	17.0	2.8	1.6	37.0	3.5	1.8
			16.0	3.7	1.8	35.0	3.1	1.4	22.0	3.9	1.2	30.0	2.8	1.5
...			28.0	3.2	2.2	30.0	2.7	1.8	17.0	3.4	1.7	36.0	2.3	2.4
			19.0	2.8	1.9	26.0	2.1	1.5	31.0	2.6	2.1	29.0	1.8	1.8
			15.0	2.1	1.3	21.0	2.7	2.2	38.0	1.9	1.8	34	2.4	1.5
			11.0	1.8	2.1	16.0	2.1	2.7	25.0	1.4	2.4	31.0	1.9	2.6
			15.0	1.3	2.9	25.0	1.7	3.1	20.0	1.9	2.8	37.0	2.4	2.1
			19.0	1.6	3.5	21.0	2.2	3.8	27.0	2.4	2.5	31.0	2.9	3.7
			11.0	**1.3**	**1.2**	**16.0**	**1.7**	**1.4**	**17.0**	**1.4**	**1.0**	**24.0**	**1.8**	**1.5**
...			**28.0**	**3.7**	**3.5**	**35.0**	**3.1**	**3.8**	**38.0**	**3.9**	**2.8**	**38.0**	**3.5**	**3.7**
			20.2	**2.5**	**2.0**	**25.7**	**2.3**	**2.3**	**25.9**	**2.5**	**1.8**	**32.4**	**2.6**	**2.1**

A- Not Applicable

ND-Not Detectable

STACK MONITORING RESULTS WITH RESPECT TO DUCTILE IRON SPUN PIPE PLANT (April, 2015 to March, 2016)

	Stack attached to Core Shop-V			Stack attached to Core Shop-VI			Stack attached to Bitumin Drying Oven-I			Stack attached to Common stack Bitument Dry Oven-II & Boiler		
	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx
	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm
	27.0	ND	ND	23.0	ND	ND				71.0	ND	11.4
	21.0	ND	ND	18.0	ND	ND				79.0	ND	12.3
	16.0	ND	ND	13.0	3.3	2.3				73.0	4.1	13.4
	26.0	2.7	1.9	19.0	3.1	2.1				67.0	17.4	15.6
	31.0	3.3	1.5	25.0	3.9	1.7				71.0	18.5	16.7
	38.0	3.3	2.1	29.0	2.5	1.1				68.0	19.6	17.5
	32.0	2.4	2.9	22.0	3.1	1.9				73.0	20.7	18.5
	38.0	3.3	2.3	16.0	2.4	2.6				68.0	21.8	19.6
	42.0	2.9	2.8	20.0	1.6	2.1				73.0	23.9	21.5
	46.0	2.3	3.1	15.0	1.3	2.9				64.0	25.1	23.4
	42.0	1.8	3.8	28.0	2.1	2.2				68.0	26.4	24.7
	46.0	1.5	3.2	35.0	2.7	2.9				61.0	27.5	25.8
	16.0	**1.5**	**1.5**	**13.0**	**1.3**	**1.1**				**61.0**	**4.1**	**11.4**
	46.0	**3.3**	**3.8**	**35.0**	**3.9**	**2.9**				**79.0**	**27.5**	**25.8**
	33.8	**2.6**	**2.6**	**21.9**	**2.6**	**2.2**				**69.7**	**20.5**	**18.4**

	Stack attached to Shot Blasting-I			Stack attached to Shot Blasting-II			Stack attached to Shot Blasting-III		
	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx
	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	mg/Nm^3	ppm	ppm
	29.0	ND		32.0	ND				
	53.0	ND		42.0					
	33.0			25.0					
	21.0	ND		18.0					
	18.0			15.0	ND				
	17.0			16.0			15.0		
				19.0			17.0	ND	
	26.0	ND		23.0			20.0		
	17.0			**15.0**			**15.0**		
	53.0	**ND**		**42.0**	**ND**		**20.0**	**ND**	
	28.1			**23.8**			**17.3**		

A- Not Applicable

ND-Not Detectable

Annexure-III

STATUS OF GREENBELT & PLANTATIONS

The key objective to strengthen greenbelt in and around the plant premises to minimize the pollution load and to maintain ecological balance including sustainable development.

The following species of trees, shrubs & herbs have been planted in and around the plant premises at different location of ***IPU-Samaghogha of JINDAL SAW LIMITED***. Seasonal flowers of various varieties have also been planted to enhance aesthetic view.

TREES:

Bottle Brush, Peltaphorum, Neem, Arjun, Saru, Ficus Nuda, Cordia, Cassia, Chiku, Khirni, *Prosopis cineraria* (Khezri), Ficus Benjamina, Ficus Golden, Ficus Starlight, Accassia, Jakranda, Bahunia, Ravinia Palm, Foxtail Palm, Jamun, Badam, Ashok, Coconut, Arica Palm, Fan Palm, Anar, Phonix Palm, Guava, Amla, Spathodia, Shisham, Travellers Palm, Bhismarkia Palm, Alastonia, Amaltas, Champa, Karanj, Fishtail Palm, Date Palm, & Washingtonia Palm.

SHRUBS:

Hamelia, Duranta, Acalypha, Tabermontana (Chandni), Lantana, Euphorbia, Madhukamini, Cassiabiflora, Tecoma Capensis, Halmskodia, Dracena, Arelia, Aglonema, Diffenbachia, Petra Volublis, Clematis, Clerodendron, *Quisqualis Indica*, Begnonia Venusta, Gardenia, Manihot, Ixora, Beloprane, Iresine Red, Harsingar, Hibiscus, Ficus Panda, Thuja, Calenchu,Calliandra, Allamanda, Kadvi Mehendi , Croton, Bougainvillea, Rose, Galphamia, Kaner, Nicdivia,*Caesalpinnia pulchirema* , *Lagerstromea indica*, *Nyctanthes arbotritis*, *Jasminum sambak*, *Jasminum humile*, Scheflerra & Yucca,

HERBS:

Strawberry, Vinca, Garbera, Rohea Spathia, Canna Dwarf, Spathyphyllum, Daisy, Asparagus, Fern, Chlorophytum, Chrysenthemum, Silver Dust, Kochea, Marigold, Cosmos, Ageratum, Partulaca, Gompherena & Spider Lily,

Details of Plantations Carried Out During the period of April -2015 to March-2016

Month	No. of Saplings	Species Planted	Location
April-15	142	Nicdivia, Euphorbia & Ficas Panda	VIP Guest House & Pot Plantation
May-15	Nil	---	Land Development activity
June-15	700	Tamarind, Saru, Peltaphorum, Jamun, Mango, Karanj, Cordia, Neem, Bottle Palm & Erica Palm	Samaghogha village, Samaghogha village road side, Bhujpur Village, RMHS boundary wall, Spiral-2 Crane maintenance area, New colony near gate, Coating Plant near LPG area, Spiral-2 pump house & Children Park.
July-15	102	Champa, Badam & Gultora	RO plant, Vikaspuram,Spiral-2, New Colony Electrical Control Room
Aug-15	3760	Coconut, Ber, Anar, Mango, Peltaphorum, Sisam, Ficas Nuda, Kaner Red, Mehendi, Croton, Arelia, Chiku, Desi Rose, Bottle Palm,Bougainvillea	Spiral-1 Lawn, Spiral-2 Crane maintenance area, Cafeteria, Vikaspuram, Chairman Bungalow, Sinter Plant, Outside of Gate no. 2, Near Club House, Fountain Garden, Admin area & Spiral-2 pump house.
Sep-15	1311	Bottle Palm, Peltaphorum, Coconut, Ber, Ficas Nuda, Kaner Red , Karanj, Sisam, Saru, Bougainvillea & Mehendi	Vikas Puram, Spiral-2 Crane maintenance area, Outside of plant, New Coating area, Chairman Bungalow
Oct-15	9157	Coconut, Ber, Anar, Mehendi Kadvi, Mango Kesar, Kaner Red, Arelia, Erica Palm, Desi Rose, English Rose, Ixora Red, Ixora Pink, Ficas Panda, Bougainvillea, Kaner Yellow, Hibiscas Red, Acalypha, Tecoma, Song of India, Chandni, Hamelia Dwarf.	Chairman Bungalow, Chairman Bungalow to HR building through fencing line, GM guest house to old colony corner, E & I Control Room(Colony), Admin Block, Water Treatment Plant, Outside temple, Cafeteria, JCO road & old colony boundary wall, Inside temple, Admin Block, VIP Guest House, New Coating Plant, Spiral-2, Dispatch road etc.
Nov-15	13203	Kadvi Mehendi, Ficas Nuda, Kaner Red, Ixora Red, Ixora Pink, Ficas Panda, Bougainvillea, Kaner Yellow,Hibiscas Red, Acalypha, Tecoma, Madhumalti, Chandni, Hamelia Dwarf, Cordia, Schefflera, Euphorbia Pink, Phoenix Palm, Ashoka, Zed Plants, Crysenthimum, Champa, Nicdivia,	Spiral-1, DISP trolley line, BF lab (Road side), Mould shop (Road side), SDP-2 trolley line, CPP (near LDO tank), New coating plant, old colony to Env. office road side, SDP-2 (Behind canteen), Cricket Ground, Spiral-2 pump house, Boundary Wall (Samaghogha to Gate no.2), Spral-2 (Back side of mm workshop), Fencing line (Diesel Pump), Chairman Bungalow, Savitrivihar, Admin Block.
Dec-15	5299	Tamarind, Saru, Peltaphorum, Jamun, Mango, Karanj, Cordia, Neem, Bottle Palm & Erica Palm	Samaghogha village, Samaghogha village road side, Bhujpur Village, RMHS boundary wall, Spiral-2 Crane maintenance area, New colony near gate, Coating Plant near LPG area, Spiral-2 pump house & Children Park.
Jan-16	177	Arelia, Euphorbia, Nicdivia, Champa, Ashoka	RO plant, Vikaspuram,Spiral-2, New Colony Electrical Control Room
Feb-16	--	--	--
Mar-16	9786	Ixora Pink, Bougainvillea, Tecoma, Kaner Yellow, Ficus Nuda, Kadvi	SDP-2, GM guest House, Sinter Plant, Coating Plant,Spiral-2, Water Treatment Plant, Back Side

		Mehebdi, Chiku, Mehendi, Guava, Banana, Ficas Panda, Ixora Red, Cordia, Nicdivia, Hibiscas, Phoenic Palm,	of Environment Office, Switch Yard, Temple area,Gate no.-2, Samaghogha Gram Panchayat, Cricket Ground, Nace Lab area.
Total	**43637**		

Numbers of total plantations as on dated 31st March, 2015 : **121875**
Number of saplings planted during - 1st April,15 to 31st March -16 : **43637**
Total Numbers of Plants : **165512**

Annexure-IV

CSR EXPENSES FOR THE PERIOD OF APRIL, 2015 TO MARCH, 2016 AS ACTIVITIES CARRIED OUT BY JINDAL SAW LIMITED, IPU-SAMAGHOGHA-GUJARAT

Nature of Activities	Whom to paid	Amount (Rs.)
Medical Expenses	Medical camps, Mobile dispensaries, General Medical Treatment in OPD & Indoor, Blood Donation Camp & Medicines etc.	3191331.00
Expenses incurred under Education program	Salary paid to teachers	222699.00
	Annual Sports activities at Samaghogha School	15000.00
Environmental Expenses	Incurred by the company	15240804.00
Social Welfare Expenses	Animal Husbandry - Grass distribution at Samaghogha & Bhujpur	1880103.00
	Salary paid to security at Bhujpur village	104000.00
	Donation to Samajwadi at Bhujpur	200000.00
	Infrastructure Development – Construiction of Overhead tank at Samaghogha Village	2,45,010.00
Other Expenses	Donation for Navaratri Mahotsav at Mundra	5000.00
	Misc. Expenses related to CSR	556010.00
Total		**21659957.00**

JINDAL

JINDAL SAW LTD.

JSL/ENV/F-12/GPCB/2015-16

Date: 30.07.2016

To,
Unit Head - Kutch
Gujarat Pollution Control Board
Paryavaran Bhavan
Sector – 10 A
Gandhinagar – 382010

Sub: Environmental Statement (Form-V) for Sinter Plant-1 of Jindal Saw Limited for the year 2015-16.

Ref: *Sinter Plant-1 (PCB ID-35456, Consent order No.-AWH-43256 issued on 03.09.2011).*

Dear Sir,

This has reference to the above, we are submitting herewith **Environmental Statement (Form-V)** for **Sinter Plant-1** of **Jindal Saw Limited**, Plot No.324 & 236 Village–Samaghogha, Taluka: Mundra, Dist- Kutch (Gujarat) for the period ***April-2015 to March-2016.***

Kindly acknowledge receipt for the same.

Thanking you

Yours faithfully,

For **JINDAL SAW LTD.**

A .K .Pandey
AGM- Environment

Encls: as above

CC:
Regional Officer
Gujarat Pollution Control Board
Room No. 215-217 Administrative office Building
Second Floor, Kandla Port Trust, Sector-8
Gandhidham, Kutch
Gujarat- 370201

Form –V

{See Rule 14}

Environment Statement for the period April, 2015 to March, 2016
Sinter Plant-1 (PCB ID: 35456)
PART-A

(i) Name and address of the owner / occupier of the industry operation and process

Mr. H. S. Chaudhary
JINDAL SAW LIMITED
A-1, UPSIDC Industrial Area
Nandgaon Road, Kosi Kalan
District Mathura-281403 (U.P.)

(ii) Industry category primary-(STC code) Secondary-(SIC Code) : **Red**
(iii) Production Capacity - **43,200 MT / Month**
(iv) Year of Establishment : **2005**
(v) Date of last Environment statement submitted – **25.08.2015**

PART –B

Water and Raw Material Consumption

(i) Water consumption **m^3 /day**
Process - **71.19**
Cooling - NIL
Domestic – NIL

Name of Products	**Water consumption per unit of product output**	
	During the previous Financial Year	During the current Financial Year
Sinter	**0.16 KL/ MT**	**0.08 KL/MT**

(ii) Raw Material Consumption

Sr. No.	Name of Raw Material	Name of Product	Consumption of Raw material per unit of output	
			During the Previous Financial Year (MT/MT)	During the Current Financial Year (MT/MT)
1	Iron Ore Fines	Sinter	0.63	**0.71**
2	BF return / Sinter fines		0.21	**0.21**
3	Lime Stone		0.13	**0.13**
4	Flue Dust		0.02	**0.02**
5	Dolomite		0.05	**0.05**
6	Coke Fines		0.07	**0.07**
7	Mill Scale		0.02	**0.08**

Month wise raw material consumption & production detail is enclosed as **Annexure-I**

- Industry may use codes if disclosing details would raw material would violate contractual obligations, otherwise all industries have to name the raw material used.

PART-C

Pollution discharged to environment / unit of output
(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharge (Mass/Day)	Concentration of pollutants in discharges (Mass/Volume)	Percentage of variation from prescribed standards with reasons
(a) Water	**No discharge of treated domestic wastewater, it is being reused for plant cooling, dust suppression & horticulture purposes.**		**Results are well below the permissible limits**
(b) Air	**Monitoring Results (Ambient Air, Stack Emission, Noise Level, and Water & Wastewater Quality) is enclosed as Annexure-II.**		**Results are well below the permissible limits**

PART-D

(As specified under [Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008)]

Hazardous Waste	Total Quantity (KL)	
	During the previous financial year.	During the current financial year.
(a) From Process	Not applicable	**Not applicable**
(b) From Pollution Control Facilities	Not applicable	**Not applicable**
(c) Others (Used Oil)	NIL	**0.630 KL**

Note: Used oil used in plant premises for the purpose of lubricating

PART- E

Solid Waste

Solid waste	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
(a) From Process	Not applicable	**Not applicable**
(b) From Pollution Control Facilities	----	**5042.58 (MT)**
(c) (1) Quantity recycled or re-utilized within the unit	----	**5042.58 (MT)**
(2) Sold	Not applicable	**Not applicable**
(3) Disposed	Not applicable	**Not applicable**

PART- F

PLEASE SPECIFY THE CHARACTERIZATION (in terms of composition and quantum) of hazardous as well as solid wastes and indicates disposal practice adopted for both these categories of wastes.

Generation of hazardous waste (used / waste oil) during current financial year is used in plant premises for the purpose of lubricating.

PART- G

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

1. All BF return fines materials and other fine materials are being used as raw material in sinter plant. This is one type of conservation of natural resources otherwise they would be waste.
2. Blast Furnace gas is being used in Sintering process which leads to conserve natural fuels like LDO, HSD etc.

PART- H

Additional measures / investment proposed for environment protection including abatement of pollution, prevention of pollution.

- In sinter plant we are utilizing flue dust which is coming out from the pollution control equipments of Blast Furnace & BF return as a raw material in sinter plant.
- Company has also installed Dry Fogging System (water fog canon) at raw material handling storage yard to minimize fugitive emissions during raw material handling.

PART- I

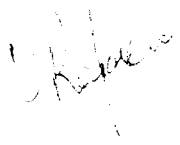
Any other particulars for improving the quality of the environment.

The followings factors which are directly responsible to maintain pollution levels through continual improvements:

- Certified with IMS (ISO 9001:2008, OHSAS 18001:2007 & ISO 14001:2004) from ***BUREAU VERITAS***.
- Regular environmental monitoring carried out for stack emission, ambient air quality and Noise level reports are submitted to Gujarat Pollution Control Board. All results are within the norms prescribed by the Gujarat Pollution Control Board.
- Periodic maintenance of all pollution control measures.

- Green belt has been developed by covering ***90 acres*** area within plant premises and planted more than ***1.65 lakhs*** saplings. The detail of plantations is enclosed as *Annexure-III*.
- Regular housekeeping to reduce fugitive emissions.
- Regular water sprinkling is being carried out through water tanker for minimizing fugitive emission.
- CSR activities as carried out in the surrounding area along with cost incurred during ***2015-2016*** is enclosed as ***Annexure –IV***

(Authorized Signatory)



Name: **V. RAJASEKARAN**
Designation: **Vice President**

Address: JINDAL SAW LIMITED,
PRAGPAR MANDVI ROAD,
VILLAGE- SAMAGHOGHA, TALUKA-MUNDRA
DISTRICT-KUTCH (GUJARAT)

Annexure-1

SINTER PLANT- 1

Production Details (MT)

Month	SINTER (MT)
Apr-15	29960
May-15	32950
Jun-15	30200
Jul-15	33810
Aug-15	32690
Sep-15	31500
Oct-15	31390
Nov-15	26900
Dec-15	0
Jan-16	14420
Feb-16	8015
Mar-16	34280
Total	**306115**

Raw Material consumption (MT)

Month	Raw Material								
	Sinter Fines	Iron ore fines	Mill Scale	Sludge/ Flue Dust	Coke Fines	Limestone Fines	Dolomite Fines	Quick Lime	Pellet Granules
Apr-15	4844	18140	--	--	1814	4440	1600	--	3358
May-15	5493	23543	444	600	2104	4854	1688	--	--
June-15	5530	21995	--	469	2139	3754	1595	--	--
Jul-15	5833	24189	506	444	2287	4608	2243	--	--
Aug-15	6326	23403	40	379	2058	4377	1218	--	--
Sep -15	6863	20408	1321	817	1750	4327	1043	--	--
Oct -15	5505	20618	2770	794	1694	4076	859	82	--
Nov-15	5905	16016	3505	645	1606	2097	880	540	--
Dec-15	--	--	--	--	--	--	--	--	--
Jan-16	3488	7860	1979	395	773	1502	400	292	--
Feb-16	9258	21319	7767	987	2519	3390	2665	--	
Mar-16	6742	18774	6190	320	1823	3573	1564	549	--
Total	**65787**	**216265**	**24522**	**5850**	**20567**	**40998**	**15755**	**1463**	**3358**

Water Consumption (KL)	
Month	**Process Biodegradable**
APR.2015	2216
MAY.2015	3163
JUN.2015	3250
JUL.2015	3007
AUG.2015	2673
SEP.2015	3083
OCT.2015	2110
NOV.2015	1925
DEC.2015	0
JAN.2016	1193
FEB.2016	715
MAR.2016	2649
Total	**25984**

Annexure-II

National Ambient Air Quality Monitoring Results (April-15 to March-16)

Month	Name of Locations														
	Main Gate (NAAQMS-1)					Sinter Plant-1 (NAAQMS-2)					Nr. Workshop Spiral -II (NAAQMS-3)				
	PM 10	PM2.5	SO_2	NO_2	CO**	PM 10	PM2.5	SO_2	NO_2	CO**	PM 10	PM2.5	SO_2	NO_2	CO**
	Average Values (Unit:- µg/m^3)														
Apr-15	64.7	41.2	3.7	21.1	BDL	69.2	47.2	4.1	20.7	BDL	56.2	35.2	3.8	18.2	BDL
May-15	64.0	18.5	4.8	20.5		68.5	16.5	4.7	20.0		51.5	15.5	3.7	18.2	
Jun-15	56.0	20.0	4.1	19.6		67.5	21.5	4.9	18.7		44.5	15.5	3.1	17.4	
Jul-15	41.0	16.5	3.2	16.2		49.0	23.0	3.9	16.4		33.5	17.0	2.5	13.9	
Aug-15	49.9	21.3	4.1	18.3		55.5	24.5	4.5	16.7		38.1	17.3	2.7	14.8	
Sep-15	47.3	20.9	3.3	17.1		49.3	23.2	3.3	15.3		32.6	14.1	2.0	14.5	
Oct-15	64.7	41.2	3.7	21.1		69.2	47.2	4.1	20.7		56.2	35.2	3.8	18.2	
Nov-15	64.0	18.5	4.8	20.5		68.5	16.5	4.7	20.0		51.5	15.5	3.7	18.2	
Dec-15	56.0	20.0	4.1	19.6		67.5	21.5	4.9	18.7		44.5	15.5	3.1	17.4	
Jan-16	41.0	16.5	3.2	16.2		49.0	23.0	3.9	16.4		33.5	17.0	2.5	13.9	
Feb-16	49.9	21.3	4.1	18.3		55.5	24.5	4.5	16.7		38.1	17.3	2.7	14.8	
Mar-16	47.3	20.9	3.3	17.1		49.3	23.2	3.3	15.3		32.6	14.1	2.0	14.5	
Min	**41.0**	**16.5**	**3.2**	**16.2**	BDL	**49.0**	**16.5**	**3.3**	**15.3**	BDL	**32.6**	**14.1**	**2.0**	**13.9**	BDL
Max	**64.7**	**41.2**	**4.8**	**21.1**		**69.2**	**47.2**	**4.9**	**20.7**		**56.2**	**35.2**	**3.8**	**18.2**	
Avg.	**53.8**	**23.1**	**3.9**	**18.8**		**59.8**	**26.0**	**4.2**	**18.0**		**42.7**	**19.1**	**3.0**	**16.2**	

BDL- Below detectable limit

Ambient Air Quality Monitoring Results (April-15 to March-16)

onth	Old Colony (AAQ-1)						Nr. Rain Water Harvesting Pond (AAQ-2)						LPG Yard (AAQ-3)						Between Sinter & Spiral (AAQ-4)					
	Unit- µg/m3																							
	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*
r-15	46.0	27.0	3.8	14.4			41.0	24.0	4.5	17.3			56.0	35.0	3.1	12.2			49.0	31.0	3.9	11.4		
y-15	39.0	16.0	2.9	13.5			48.0	19.0	3.7	16.4			41.0	18.0	4.1	14.1			43.0	14.0	4.8	12.3		
n-15	28.0	11.0	1.8	12.4			56.0	22.0	3.2	15.7			48	20.0	3.5	13.6			51	18	4.3	11.8		
l-15	32.0	16.0	1.2	13.8			64.0	26.0	2.5	16.4			53.0	23.0	4.4	14.5			59.0	21.0	3.6	12.7		
g-15	37.0	11.0	1.7	12.6			60.0	23.0	1.9	15.2			57.0	26.0	3.8	13.7			52.0	18.0	2.9	11.8		
p-15	28.0	13.0	1.1	9.7	BDL	ND	49.0	21.0	2.3	13.1	BDL	ND	51.0	24.0	3.1	12.6	BDL	ND	47.0	16.0	1.8	10.7	BDL	ND
t-15	25.0	10.0	1.6	8.6			34.0	14.0	2.9	11.9			39.0	20.0	2.7	10.5			43.0	13.0	2.4	9.5		
v-15	29.0	13.0	1.2	7.5			38.0	16.0	3.5	10.8			44.0	23.0	1.2	9.4			48.0	15.0	3.1	8.9		
c-15	33.0	15.0	1.8	6.9			43.0	19.0	2.6	11.5			39	21.0	3.5	10.6			36	13	2.8	9.5		
n-16	24.0	11.0	2.3	7.6			48.0	23.0	3.5	12.6			43.0	18.0	4.2	11.5			31.0	15.0	3.7	10.4		
b-16	29.0	13.0	1.8	8.3			43.0	19.0	2.6	11.5			48.0	22.0	3.4	10.3			36.0	17.0	3.1	9.5		
r-16	24.0	11.0	1.2	7.2			37.0	15.0	2.2	8.4			48.0	20.0	2.9	9.2			40.0	19.0	2.5	8.4		
in.	**24.0**	**10.0**	**1.1**	**6.9**			**34.0**	**14.0**	**1.9**	**8.4**			**39.0**	**18.0**	**1.2**	**9.2**			**31.0**	**13.0**	**1.8**	**8.4**		
ax.	**46.0**	**27.0**	**3.8**	**14.4**	BDL	ND	**64.0**	**26.0**	**4.5**	**17.3**	BDL	ND	**57.0**	**35.0**	**4.4**	**14.5**	BDL	ND	**59.0**	**31.0**	**4.8**	**12.7**	BDL	ND
vg.	**31.2**	**13.9**	**1.9**	**10.2**			**46.8**	**20.1**	**3.0**	**13.4**			**47.3**	**22.5**	**3.3**	**11.9**			**44.6**	**17.5**	**3.2**	**10.6**		

nth	Labour Colony (AAQ-5)						New Colony (AAQ-6)						VIP Guest House (AAQ-7)						Weigh Bridge No.-1 (AAQ-8)					
	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*
	Unit-µg/m3																							
r-15	65.0	49.0	3.6	11.4			61.0	44.0	12.2	10.2			67.0	40.0	2.9	8.7			71.0	48.0	2.1	8.5		
y-15	49.0	12.0	3.1	12.3			55.0	18.0	3.9	11.5			52.0	11.0	3.1	9.3			59.0	15.0	2.4	10.5		
n-15	40.0	14.0	2.6	11.1			44.0	12.0	2.8	10.6			37.0	16.0	2.0	9.9			64.0	24.0	2.8	12.8		
l-15	45.0	19.0	2.1	13.4			50.0	17.0	3.3	11.6			42.0	24.0	2.9	3.5			68.0	29.0	4.8	13.9		
g-15	49	16	2.8	12.1			42	13.0	4.1	10.6			46.0	22.0	2.2	9.5			63.0	27.0	5.3	14.2		
p-15	42	19	3.4	11.2	BDL	ND	54	27	3.9	10.1	BDL	ND	38	15	3.8	11.9	BDL	ND	60	29	4.2	13.8	BDL	ND
t-15	45.0	16.0	3.9	10.1			41.0	23.0	2.1	9.1			35.0	21.0	3.3	12.3			38.0	18.0	4.9	14.4		
v-15	40.0	19.0	4.8	9.7			35.0	26.0	2.9	8.3			31.0	24.0	3.7	11.2			42.0	21.0	5.5	13.2		
c-15	46.0	23.0	4.1	10.7			30.0	20.0	2.2	9.1			40.0	18.0	2.1	12.6			48.0	24.0	4.9	14.7		
n-16	40.0	19.0	5.2	11.8			35.0	22.0	3.4	10.2			33.0	14.0	4.2	13.7			54.0	20.0	6.1	15.8		
b-16	44	21	4.5	10.9			31	18.0	2.8	11.4			37.0	16.0	3.5	14.5			50.0	24.0	7.4	16.9		
r-16	39	18	3.8	9.8			35	16	2.4	10.3			42	21	2.8	13.4			55	22	8.5	15.8		
n.	**39.0**	**12.0**	**2.1**	**9.7**			**30.0**	**12.0**	**2.1**	**8.3**			**31.0**	**11.0**	**2.0**	**3.5**			**38.0**	**15.0**	**2.1**	**8.5**		
ax.	**65.0**	**49.0**	**5.2**	**13.4**	BDL	ND	**61.0**	**44.0**	**12.2**	**11.6**	BDL	ND	**67.0**	**40.0**	**4.2**	**14.5**	BDL	ND	**71.0**	**48.0**	**8.5**	**16.9**	BDL	ND
vg.	**45.3**	**20.4**	**3.7**	**11.2**			**42.8**	**21.3**	**3.8**	**10.3**			**41.7**	**20.2**	**3.0**	**10.9**			**56.0**	**25.1**	**4.9**	**13.7**		

Below Detectable Limit
ot Detectable

FUGITIVE EMISSION RESULTS (APRIL-2015 TO March-16)

Name of Locations

Unit: µg/m3

Months	RMH Junction House (A 1)					RMH Stock House (A 2)					Sinter RMH Yard (A 3)					Sinter 2 Ground Hopper (A-4)					DISP CCM Area (A-5)					Sinter-1 Main to PMD (A-6)				
	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*
Apr-15	1384	6	29			1987	6	30			2234	7	27			124*	7	26			915	7	14			1428	6	22		
May-15	972	7	27			1497	6	28			1974	8	25			619	8	24			791	9	32			1428	8	24		
Jun-15	1057	8	26			1564	8	28			1813	9	24			789	7	23			597	10	33			1676	9	25		
Jul-15	1341	9.5	26.3			1720	8.9	27.6			2104	10.3	25.1			931	8	24			668	11	31			1896	11	28		
Aug-15	1420	10	27			1927	10	29			2319	12	27			1013	9	24			712	12	33			2015	11	29		
Sep-15	1597	12	26	BDL	ND	2109	11	27	BDL	ND	1915	13	26	BDL	ND	1234	9	23	BDL	ND	623	13	31	BDL	ND	2254	10	28	BDL	ND
Oct-15	1263	12.6	27.9			1479	11.8	28.5			1135	13.7	26.7			732	10.3	24.2			516	14.4	31.5			924	11.1	29.4		
Nov-15	1121	11.5	26.8			1302	10.7	27.4			1024	12.6	25.6			617	9.2	23.1			420	13.1	30.4			807	10.5	28.3		
Dec-15	1328	12.7	25.6			1211	11.9	26.3			1154	13.8	24.7			764	10.5	21.8			512	14.6	29.1			992	11.2	27.2		
Jan-16	1482	13.8	26.7			1310	12.7	27.2			1246	14.9	25.8			855	11.6	22.9			608	15.7	28.4			1081	12.3	26.1		
Feb-16	1381	12.9	25.8			1243	11.8	26.3			1108	13.7	24.9			746	10.7	21.6			513	14.8	27.5			950	11.4	25.2		
Mar-16	1457	13.8	26.7			1534	12.7	27.2			1211	14.6	25.8			920	11.6	22.5			619	15.7	28.4			1347	12.3	26.1		
Min	**972**	**6**	**26**			**1211**	**6**	**26**			**1024**	**7**	**24**			**617**	**7**	**22**			**420**	**7**	**14**			**807**	**6**	**22**		
Max	**1597**	**14**	**29**	BDL	ND	**2109**	**13**	**30**	BDL	ND	**2319**	**15**	**27**	BDL	ND	**1241**	**12**	**26**	BDL	ND	**915**	**16**	**33**	BDL	ND	**2254**	**12**	**29**	BDL	ND
Avg.	**1317**	**11**	**27**			**1573**	**10**	**28**			**1603**	**12**	**26**			**872**	**9**	**23**			**625**	**13**	**29**			**1400**	**10**	**27**		

BDL : Below Detectable Limit
ND : Not Detectable

Month	Ambient Air Quality Monitoring with Respect to Noise (April-2015 to March-2016)													
	NOISE LEVELS [db (A]													
	Admin Building		Old Colony		Near LPG Yard		Near New Colony (School)		Near SDP-2		Near Coating Plant		Near Gate No.2	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Apr-15	50.3	46.3	44.2	42.5	65.3	59.8	46.8	42.7	65.2	61.6	61.3	62.9	62.5	58.4
May-15	49.5	44.2	44.9	40.6	60.2	56.1	45.9	41.9	64.8	60.4	64.1	61.6	63.9	57.1
Jun-15	48.5	44.3	42.3	38.2	58.6	54.5	43.7	39.1	63.9	59.4	63.9	60.1	59.8	54.2
Jul-15	47.2	43.2	41.5	37.1	57.3	53.6	42.5	38.2	62.1	58.5	61.8	59.2	58.6	53.3
Aug-15	46.1	42.1	40.4	36.8	56.2	52.4	41.4	37.1	60.9	57.4	61.1	58.1	57.5	52.4
Sep-15	44.9	40.8	39.3	35.7	55.1	51.3	40.3	36.5	59.8	56.3	60.2	56.9	56.4	51.3
Oct-15	43.8	39.7	38.2	34.6	53.9	50.2	39.2	35.4	57.9	55.2	59.1	54.8	55.3	50.2
Nov-15	42.7	38.6	37.1	33.5	52.8	49.1	38.1	34.3	56.8	54.1	57.9	53.7	54.2	49.1
Dec-15	43.6	39.5	38.3	34.4	53.7	50.2	39.2	35.2	57.7	55.3	58.6	54.6	55.1	50.9
Jan-16	44.5	40.4	39.2	35.3	44.6	51.1	40.1	36.1	58.6	56.2	59.5	55.5	58.1	51.8
Feb-16	45.6	41.5	40.3	36.4	55.7	52.2	41.2	37.2	59.7	57.3	60.6	50.6	59.2	52.9
Mar-16	43.5	39.4	38.2	34.3	53.6	50.1	39.1	35.1	57.6	55.2	58.5	54.5	57.1	50.8
Min.	**42.7**	**38.6**	**37.1**	**33.5**	**44.6**	**49.1**	**38.1**	**34.3**	**56.8**	**54.1**	**57.9**	**50.6**	**54.2**	**49.1**
Max.	**50.3**	**46.3**	**44.9**	**42.5**	**65.3**	**59.8**	**46.8**	**42.7**	**65.2**	**61.6**	**64.1**	**62.9**	**63.9**	**58.4**
Avg.	**45.9**	**41.7**	**40.3**	**36.6**	**55.6**	**52.6**	**41.5**	**37.4**	**60.4**	**57.2**	**60.6**	**56.9**	**58.1**	**52.7**

MONTH	Near Sinter Plant-1		Near Sinter Plant-2		Near BF-1		Near BF-2		Near Main Gate Security Office	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Apr-15	67.1	60.3	64.2	62.8	64.5	60.4	66.3	62.9	59.6	47.8
May-15	66.8	60.9	65.1	61.8	65.7	62.9	64.4	52.1	51.6	46.8
Jun-15	65.7	60.1	64.3	60.9	61.9	57.8	61.1	53.5	50.2	45.6
Jul-15	64.7	58.9	63.4	59.8	60.8	56.1	60.1	52.3	49.3	44.7
Aug-15	63.6	57.8	62.3	58.7	59.7	55.7	58.9	51.2	48.2	43.6
Sep-15	62.5	56.7	61.2	57.6	58.6	54.5	57.8	50.1	47.1	42.5
Oct-15	61.4	55.6	60.1	56.5	57.5	53.4	56.7	48.9	54.9	41.4
Nov-15	62.3	54.5	58.9	55.4	56.4	52.3	55.6	47.8	44.8	40.3
Dec-15	61.2	55.4	59.8	56.3	57.3	53.2	56.5	48.7	54.7	41.2
Jan-16	62.1	56.3	60.7	57.2	58.2	54.1	57.4	49.6	46.6	42.1
Feb-16	63.2	57.4	61.8	58.3	59.3	55.2	58.5	50.1	47.3	43.0
Mar-16	61.1	55.3	59.7	56.2	57.2	53.1	56.4	48.6	45.2	41.1
Min.	**61.1**	**54.5**	**58.9**	**55.4**	**56.4**	**52.3**	**55.6**	**47.8**	**44.8**	**40.3**
Max.	**67.1**	**60.9**	**65.1**	**62.8**	**65.7**	**62.9**	**66.3**	**62.9**	**59.6**	**47.8**
Avg.	**63.5**	**57.4**	**61.8**	**58.5**	**59.8**	**55.7**	**59.1**	**51.3**	**50.0**	**43.3**

Work Place Noise Monitoring (April -2015 to March - 2016)

NOISE LEVELS [dB(A)]

Month	Sinter Plant-1				Sinter Plant-2				Blast Furnace -1						Blast Furnace-2		
	Inside Control Room	Inside Mechanical Room	Inside Electrical Room	Inside Plant office	Inside Control Room	Inside Operator Room	Near Proprtioning Building	Near Crusher House	Nr. Stock House	Inside Control Room	Inside Control Room of Cast House	Inside Laboratory	Inside Control Room of Blower House	Inside Control Room of CPP	Inside control room	Nr. Stock House	Control Room of Blower House
Apr-15	44.7	53.9	60.1	55.2	53.5	63.4	65.3	70.2	66.7	49.3	49.8	46.1	61.2	57.4	62.9	65.8	67.5
May-15	41.2	48.2	47.8	50.2	52.6	61.9	64.8	71.7	65.2	48.8	49.1	45.8	59.2	56.9	62.1	66.2	68.4
Jun-15	40.5	46.7	48.6	49.3	51.7	60.8	63.9	70.1	64.8	47.3	48.6	44.5	58.2	55.4	59.2	65.3	66.8
Jul-15	39.4	45.8	47.5	48.7	50.2	59.8	62.8	69.9	65.8	46.2	47.4	42.9	57.1	53.7	57.5	64.9	67.3
Aug-15	40.5	46.9	48.6	49.8	51.3	60.9	63.5	70.4	66.7	47.3	48.5	44.1	58.6	54.8	58.6	66.2	68.4
Sep-15	41.6	47.5	48.1	50.8	50.2	59.8	62.4	69.3	65.6	46.2	47.4	42.9	57.5	53.7	57.5	65.1	67.3
Oct-15	40.5	46.4	46.9	49.7	49.1	58.7	61.3	68.2	64.5	45.1	46.3	41.8	56.4	52.6	56.4	63.9	65.2
Nov-15	41.6	47.5	48.1	50.8	50.5	59.9	63.2	69.4	65.6	46.2	47.8	42.9	57.5	53.7	57.8	65.1	66.7
Dec-15	43.6	49.5	50.2	52.7	51.4	60.8	64.1	70.3	66.8	47.6	48.2	43.8	58.9	54.5	58.7	66.3	67.6
Jan-16	44.8	50.7	51.4	53.9	52.3	61.7	65.5	71.2	67.9	48.7	49.3	44.9	60.1	55.6	59.6	67.2	69.5
Feb-16	45.9	51.8	50.3	55.2	53.4	62.8	66.7	72.3	69.1	49.8	50.4	46.1	61.2	56.7	60.7	68.3	70.6
Mar-16	43.8	49.7	48.2	53.1	51.3	60.7	65.6	70.2	66.9	47.6	48.3	43.9	59.1	54.6	58.6	66.2	68.5
Min.	**39.4**	**45.8**	**46.9**	**48.7**	**49.1**	**58.7**	**61.3**	**68.2**	**64.5**	**45.1**	**46.3**	**41.8**	**56.4**	**52.6**	**56.4**	**63.9**	**65.2**
Max.	**45.9**	**53.9**	**60.1**	**55.2**	**53.5**	**63.4**	**66.7**	**72.3**	**69.1**	**49.8**	**50.4**	**46.1**	**61.2**	**57.4**	**62.9**	**68.3**	**70.6**
Avg.	**42.3**	**48.7**	**49.7**	**51.6**	**51.5**	**60.9**	**64.1**	**70.3**	**66.3**	**47.5**	**48.4**	**44.1**	**58.8**	**55.0**	**59.1**	**65.9**	**67.8**

NOISE LEVELS [dB(A)]
Pipe Plant

Month	Inside control room of Anealling Furnace of DISP	Inside Control Room Mill area of Spiral Plant-1	Nr. Pipe Cutting Area of Spiral Plant	Inside JCO Plant	Inside DISP Plant	Inside Coating Plant	Nr. CCM SDP-2	Inside control room of Anneling furnace of SDP-2	Nr. Zinc Coating SDP-2	Nr. Mould Shop
Apr-15	53.5	64.1	73.2	67.9	73.5	70.8	67.3	60.9	71.6	72.8
May-15	52.2	62.8	72.9	68.3	72.2	69.5	66.1	53.2	70.3	72.8
Jun-15	51.5	61.7	71.4	67.3	71.6	68.1	65.2	51.6	69.4	73.8
Jul-15	50.7	60.9	70.8	66.4	72.5	69.1	66.1	50.9	70.4	74.3
Aug-15	51.8	61.7	71.9	67.5	73.6	70.5	67.2	52.1	71.5	75.4
Sep-15	50.7	60.6	70.8	66.4	72.5	69.4	66.1	50.9	70.4	74.3
Oct-15	49.6	59.9	69.7	65.3	71.4	68.3	64.9	49.2	69.8	76.6
Nov-15	50.9	60.1	70.4	66.7	72.8	69.5	65.6	50.9	70.2	77.3
Dec-15	51.4	61.5	71.3	67.2	73.4	70.2	66.1	51.7	72.1	78.6
Jan-16	52.3	62.4	72.2	68.1	74.3	71.1	67.8	52.6	73.5	79.4
Feb-16	53.4	63.5	73.3	69.2	75.4	72.2	68.9	53.7	74.6	80.5
Mar-16	51.3	61.4	72.2	67.1	73.2	70.1	66.8	51.6	72.5	78.4
Min.	**49.6**	**59.9**	**69.7**	**65.3**	**71.4**	**68.1**	**64.9**	**49.2**	**69.4**	**72.8**
Max.	**53.5**	**64.1**	**73.3**	**69.2**	**75.4**	**72.2**	**68.9**	**60.9**	**74.6**	**80.5**
Avg.	**51.6**	**61.7**	**71.7**	**67.3**	**73.0**	**69.9**	**66.5**	**52.4**	**71.4**	**76.2**

STACK MONITORING RESULTS WITH RESPECT TO SINTER PLANT-I (APRIL, 2015 to MARCH, 2016)									
Month	Stack attached to Sinter Furnace			Stack attached to Discharge end			Stack attached to Fuel & Flux Crusher and screening building		
	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx
	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm
Apr-15	54.0	ND	3.4	37.0	NA		34.0	NA	
May-15	47.0	ND	4.2	31.0			27.0		
Jun-15	40.0	3.8	5.6	27.0			22.0		
Jul-15	51.0	3.1	6.8	32.0			26.0		
Aug-15	57.0	2.9	7.9	39.0			20.0		
Sep-15	51.0	ND	8.5	19.0			26.0		
Oct-15	57.0	ND	9.4	24.0	NA		33.0	NA	
Nov-15	46.0		8.7	33.0			25.0		
Jan-16	32.0	ND	8.8	23.0	NA		...		
Feb-16	39.0		7.6	28.0			21.0	NA	
Mar-16	53.0		5.4	34.0			28.0		
Min.	**32.0**	**2.9**	**3.4**	**19.0**	**NA**		**20.0**	**NA**	
Max.	**57.0**	**3.8**	**9.4**	**39.0**			**34.0**		
Avg.	**47.9**	**3.3**	**6.9**	**29.7**			**26.2**		

NA Not Applicable

ND-Not Detectable

Annexure-III

STATUS OF GREENBELT & PLANTATIONS

The key objective to strengthen greenbelt in and around the plant premises to minimize the pollution load and to maintain ecological balance including sustainable development.

The following species of trees, shrubs & herbs have been planted in and around the plant premises at different location of ***IPU-Samaghogha of JINDAL SAW LIMITED***. Seasonal flowers of various varieties have also been planted to enhance aesthetic view.

TREES:

Bottle Brush, Peltaphorum, Neem, Arjun, Saru, Ficus Nuda, Cordia, Cassia, Chiku, Khirni, *Prosopis cineraria* (Khezri), Ficus Benjamina, Ficus Golden, Ficus Starlight, Accassia, Jakranda, Bahunia, Ravinia Palm, Foxtail Palm, Jamun, Badam, Ashok, Coconut, Arica Palm, Fan Palm, Anar, Phonix Palm, Guava, Amla, Spathodia, Shisham, Travellers Palm, Bhismarkia Palm, Alastonia, Amaltas, Champa, Karanj, Fishtail Palm, Date Palm, & Washingtonia Palm.

SHRUBS:

Hamelia, Duranta, Acalypha, Tabermontana (Chandni), Lantana, Euphorbia, Madhukamini, Cassiabiflora, Tecoma Capensis, Halmskodia, Dracena, Arelia, Aglonema, Diffenbachia, Petra Volublis, Clematis, Clerodendron, *Quisqualis Indica*, Begnonia Venusta, Gardenia, Manihot, Ixora, Beloprane, Iresine Red, Harsingar, Hibiscus, Ficus Panda, Thuja, Calenchu,Calliandra, Allamanda, Kadvi Mehendi , Croton, Bougainvillea, Rose, Galphamia, Kaner, Nicdivia,*Caesalpinnia pulchirema* , *Lagerstromea indica*, *Nyctanthes arbotritis*, *Jasminum sambak*, *Jasminum humile*, Scheflerra & Yucca,

HERBS:

Strawberry, Vinca, Garbera, Rohea Spathia, Canna Dwarf, Spathyphyllum, Daisy, Asparagus, Fern, Chlorophytum, Chrysenthemum, Silver Dust, Kochea, Marigold, Cosmos, Ageratum, Partulaca, Gompherena & Spider Lily,

Details of Plantations Carried Out During the period of April -2015 to March-2016

Month	No. of Saplings	Species Planted	Location
April-15	142	Nicdivia, Euphorbia & Ficas Panda	VIP Guest House & Pot Plantation
May-15	Nil	---	Land Development activity
June-15	700	Tamarind, Saru, Peltaphorum, Jamun, Mango, Karanj, Cordia, Neem, Bottle Palm & Erica Palm	Samaghogha village, Samaghogha village road side, Bhujpur Village, RMHS boundary wall, Spiral-2 Crane maintenance area, New colony near gate, Coating Plant near LPG area, Spiral-2 pump house & Children Park.
July-15	102	Champa, Badam & Gultora	RO plant, Vikaspuram,Spiral-2, New Colony Electrical Control Room
Aug-15	3760	Coconut, Ber, Anar, Mango, Peltaphorum, Sisam, Ficas Nuda, Kaner Red, Mehendi, Croton, Arelia, Chiku, Desi Rose, Bottle Palm,Bougainvillea	Spiral-1 Lawn, Spiral-2 Crane maintenance area, Cafeteria, Vikaspuram, Chairman Bungalow, Sinter Plant, Outside of Gate no. 2, Near Club House, Fountain Garden, Admin area & Spiral-2 pump house.
Sep-15	1311	Bottle Palm, Peltaphorum, Coconut, Ber, Ficas Nuda, Kaner Red , Karanj, Sisam, Saru, Bougainvillea & Mehendi	Vikas Puram, Spiral-2 Crane maintenance area, Outside of plant, New Coating area, Chairman Bungalow
Oct-15	9157	Coconut, Ber, Anar, Mehendi Kadvi, Mango Kesar, Kaner Red, Arelia, Erica Palm, Desi Rose, English Rose, Ixora Red, Ixora Pink, Ficas Panda, Bougainvillea, Kaner Yellow, Hibiscas Red, Acalypha, Tecoma, Song of India, Chandni, Hamelia Dwarf.	Chairman Bungalow, Chairman Bungalow to HR building through fencing line, GM guest house to old colony corner, E & I Control Room(Colony), Admin Block, Water Treatment Plant, Outside temple, Cafeteria, JCO road & old colony boundary wall, Inside temple, Admin Block, VIP Guest House, New Coating Plant, Spiral-2, Dispatch road etc.
Nov-15	13203	Kadvi Mehendi, Ficas Nuda, Kaner Red, Ixora Red, Ixora Pink, Ficas Panda, Bougainvillea, Kaner Yellow,Hibiscas Red, Acalypha, Tecoma, Madhumalti, Chandni, Hamelia Dwarf, Cordia, Schefflera, Euphorbia Pink, Phoenix Palm, Ashoka, Zed Plants, Crysenthimum, Champa, Nicdivia,	Spiral-1, DISP trolley line, BF lab (Road side), Mould shop (Road side), SDP-2 trolley line, CPP (near LDO tank), New coating plant, old colony to Env. office road side, SDP-2 (Behind canteen), Cricket Ground, Spiral-2 pump house, Boundary Wall (Samaghogha to Gate no.2), Spral-2 (Back side of mm workshop), Fencing line (Diesel Pump), Chairman Bungalow, Savitrivihar, Admin Block.
Dec-15	5299	Tamarind, Saru, Peltaphorum, Jamun, Mango, Karanj, Cordia, Neem, Bottle Palm & Erica Palm	Samaghogha village, Samaghogha village road side, Bhujpur Village, RMHS boundary wall, Spiral-2 Crane maintenance area, New colony near gate, Coating Plant near LPG area, Spiral-2 pump house & Children Park.
Jan-16	177	Arelia, Euphorbia, Nicdivia, Champa, Ashoka	RO plant, Vikaspuram,Spiral-2, New Colony Electrical Control Room
Feb-16	--	--	--
Mar-16	9786	Ixora Pink, Bougainvillea, Tecoma, Kaner Yellow, Ficus Nuda, Kadvi	SDP-2, GM guest House, Sinter Plant, Coating Plant,Spiral-2, Water Treatment Plant, Back Side

		Mehebdi, Chiku, Mehendi, Guava, Banana, Ficas Panda, Ixora Red, Cordia, Nicdivia, Hibiscas, Phoenic Palm,	of Environment Office, Switch Yard, Temple area,Gate no.-2, Samaghogha Gram Panchayat, Cricket Ground, Nace Lab area.
Total	**43637**		

Numbers of total plantations as on dated 31st March, 2015 : **121875**
Number of saplings planted during - 1st April,15 to 31st March -16 : **43637**
Total Numbers of Plants : **165512**

Annexure-IV

CSR EXPENSES FOR THE PERIOD OF APRIL, 2015 TO MARCH, 2016 AS ACTIVITIES CARRIED OUT BY JINDAL SAW LIMITED, IPU-SAMAGHOGHA-GUJARAT

Nature of Activities	Whom to paid	Amount (Rs.)
Medical Expenses	Medical camps, Mobile dispensaries, General Medical Treatment in OPD & Indoor, Blood Donation Camp & Medicines etc.	3191331.00
Expenses incurred under Education program	Salary paid to teachers	222699.00
	Annual Sports activities at Samaghogha School	15000.00
Environmental Expenses	Incurred by the company	15240804.00
Social Welfare Expenses	Animal Husbandry - Grass distribution at Samaghogha & Bhujpur	1880103.00
	Salary paid to security at Bhujpur village	104000.00
	Donation to Samajwadi at Bhujpur	200000.00
	Infrastructure Development – Construiction of Overhead tank at Samaghogha Village	2,45,010.00
Other Expenses	Donation for Navaratri Mahotsav at Mundra	5000.00
	Misc. Expenses related to CSR	556010.00
Total		**21659957.00**

JINDAL

JINDAL SAW LTD.

JSL/ENV/F-12/GPCB/2015-16 **Date: - 30.07.2016**

To,
Member Secretary
Gujarat Pollution Control Board
Paryavaran Bhavan
Sector – 10 A
Gandhinagar – 382010

Sub: -Environmental Statement (Form-V) for Sinter Plant-II (GPCB ID-29017) of Jindal Saw Limited for the year 2015-16.
Ref: *- Sinter Plant-II (PCB ID-29017, Consent Order No. AWH-63293 issued on 04.07.2014)*

Dear Sir,

This has reference to the above; we are submitting herewith **Environmental Statement (Form-V)** for **Sinter Plant-II** of **Jindal Saw Limited**, Plot No. 323/320 & 226 Village – Samaghogha, Taluka: Mundra, Dist- Kutch (Gujarat) for the period ***April-2015 to March-2016.***

Kindly acknowledge receipt for the same.

Thanking you

Yours faithfully,

For **JINDAL SAW LTD.**

A.K.Pandey
AGM- Environment

Encls: as above

CC:
Regional Officer
Gujarat Pollution Control Board
Room No. 215-217 Administrative office Building
Second Floor, Kandla Port Trust, Sector-8
Gandhidham, Kutch
Gujarat- 370201

Form –V

{See Rule 14}

Environment Statement for the period April 2015 to March 2016

Sinter Plant-II (PCB ID: 29017)

PART-A

(i) Name and address of the owner / occupier of the industry operation and process

Mr. H. S. Chaudhary
JINDAL SAW LIMITED
A-1, UPSIDC Industrial Area
Nandgaon Road, Kosi Kalan
District: Mathura-281403 (U.P.)

(ii) Industry category primary-(STC code) Secondary-(SIC Code) : **Red**

(iii) Production Capacity: **43,200 MT / Month**

(iv) Year of Establishment: **December, 2008**

(v) Date of last Environment statement submitted: **25.08.2015**

PART –B

Water and Raw Material Consumption

(i) Water Consumption **m^3/Day**

Process - **131.74**
Cooling - NIL
Domestic – NIL

Name of Products	Water consumption per unit of product output	
	During the previous financial year	During the current financial year
Sinter	0.16 KL/MT	**0.11KL/MT**

(ii) **Raw Material Consumption**

Sr. No.	Name of Raw Material	Name of Product	Consumption of Raw material per unit of output	
			During the previous financial year (MT/MT)	During the current financial year (MT/MT)
1	Iron Ore Fines	Sinter	0.63	**0.57**
2	BF return / Sinter fines		0.21	**0.20**
3	Lime Stone		0.13	**0.11**
4	Coke Fines		0.09	**0.06**
5	Dolomite		0.05	**0.04**
6	Flue Dust		0.02	**0.02**
7	Mill Scale		0.02	**0.08**

The month wise raw material consumption & production detail is enclosed as **Annexure-I.**

- Industry may use codes if disclosing details would raw material would violate contractual obligations, otherwise all industries have to name the raw material used.

PART-C

Pollution discharged to environment / unit of output

(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharge (Mass/Day)	Concentration of pollutants in discharges (Mass/Volume)	Percentage of variation from prescribed standards with reasons
(a) Water	No discharge of treated domestic wastewater, it is being reused for plant cooling, dust suppression & horticulture purposes.		Results are well below the permissible limits
(b) Air	Monitoring Results (Ambient Air, Stack Emission, Noise Level, and Water & Wastewater Quality) is enclosed as **Annexure-II.**		Results are well below the permissible limits

PART-D

(As specified under [Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008)]

Hazardous Waste	Total Quantity (KL)	
	During the previous financial year.	During the current financial year.
(a) From Process	Not applicable	**Not applicable**
(b) From Pollution Control Facilities		
Others (i) Used Oil	NIL	**NIL**

PART- E

Solid Waste

Solid waste	Total Quantity (Kg)	
	During the previous financial year	During the current financial Year
(a) From Process	Not Applicable	**Not Applicable**
(b) From Pollution Control Facilities	....	**9433.87 (MT)**
(c) (1) Quantity recycled or re-utilized within the unit	....	**9433.87 (MT)**
(2) Sold	Not Applicable	**Not Applicable**
(3) Disposed	Not Applicable	**Not Applicable**

PART- F

PLEASE SPECIFY THE CHARACTERIZATION (in terms of composition and quantum) of hazardous as well as solid wastes and indicates disposal practice adopted for both these categories of wastes.

No generation of hazardous waste (used / waste oil) during current financial year.

PART- G

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

1. All BF return fines materials and other fine materials are being used as raw material in sinter plant. This is one type of conservation of natural resources otherwise they would be waste.
2. Blast Furnace gas is being used in Sintering process which leads to conserve natural fuels/ fossil fuel like LDO, HSD etc.

PART- H

Additional measures / investment proposed for environment protection including abatement of pollution, prevention of pollution.

- In sinter plant we are utilizing flue dust which is coming out from the pollution control equipments of Blast Furnace & BF return as a raw material in sinter plant.
- Company has also installed Dry Fogging System (water fog canon) at raw material handling storage yard to minimize fugitive emissions during raw material handling.

PART- I

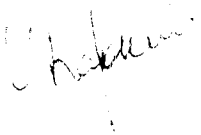
Any other particulars for improving the quality of the environment.

The followings factors which are directly responsible to maintain pollution levels through continual improvements:

- Certified with IMS (ISO 9001:2008, OHSAS 18001:2007 & ISO 14001:2004) from BUREAU VERITAS.
- Regular environmental monitoring carried out for stack emission, ambient air quality and Noise level reports are submitted to Gujarat Pollution Control Board. All results are within the norms prescribed by the Gujarat Pollution Control Board.
- Periodic maintenance of all pollution control measures.

- Green belt has been developed by covering **90 acres area** within plant premises and planted more than **1.65 lakhs** saplings. The detail of plantations is enclosed as **Annexure-III.**
- Regular housekeeping to reduce fugitive emissions.
- Regular water sprinkling is being carried out through water tanker for minimizing fugitive emission.
- CSR activities as carried out in the surrounding area along with cost incurred during **2015-2016** is enclosed as **Annexure –IV**

(Authorized Signatory)



Name: **V. Rajasekaran**
Designation: **Vice President**

Address: **JINDAL SAW LIMITED**
(IPU - Samaghogha)
Village: Samaghogha
Taluka: Mundra
Dist.: Kutch
Gujarat-370415

Annexure – I

SINTER PLANT-2

Details of Production

Month	Sinter (MT)
Apr-15	24460
May-15	37380
Jun-15	32040
Jul-15	40520
Aug-15	42905
Sep-15	37930
Oct-15	37870
Nov-15	34610
Dec-15	42950
Jan-16	42760
Feb-16	42830
Mar-16	41075
Total	**457330**

Details of Raw Material consumption (MT)

Month	Raw Material						
	Iron ore fines	Sinter Fines	Flue Dust	Limestone Fines	Dolomite Fines	Coke Fines	Mill Scale
Apr-15	15149	3925	250	3351	1245	1832	0
May-15	26886	6041	742	5439	1853	2544	540
Jun-15	23264	5952	634	3905	2114	2274	0
Jul-15	29103	7329	722	5539	2496	2779	0
Aug-15	27991	9105	674	5708	1618	2844	1599
Sep-15	23929	8086	1068	4711	1175	2250	2767
Oct-15	24517	7317	1001	4183	1120	2414	2996
Nov-15	19736	7958	852	2715	1413	2083	4543
Dec-15	23824	13696	1038	4966	2410	2962	7182
Jan-16	21795	10130	1129	3852	1695	2749	7044
Feb-16	4439	1377	180	408	636	450	1290
Mar-16	20395	8419	337	4200	1872	2457	8810
Total	**261028**	**89335**	**8627**	**48977**	**19647**	**27638**	**36771**

DETAILS OF WATER CONSUMPTION

Period	Process –Bio-degradable (KL)
Apr-15	4025
May-15	3588
Jun-15	6705
Jul-15	3604
Aug-15	3509
Sep-15	3712
Oct-15	2545
Nov-15	2449
Dec-15	4770
Jan-16	3536
Feb-16	3818
Mar-16	5825
Total	**48086**

Annexure-II

National Ambient Air Quality Monitoring Results (April-15 to March-16)

Month	Name of Locations														
	Main Gate (NAAQMS-1)					Sinter Plant-1 (NAAQMS-2)					Nr. Workshop Spiral -II (NAAQMS-3)				
	PM 10	PM2.5	SO_2	NO_2	CO**	PM 10	PM2.5	SO_2	NO_2	CO**	PM 10	PM2.5	SO_2	NO_2	CO**
	Average Values (Unit:- µg/m^3)														
Apr-15	64.7	41.2	3.7	21.1		69.2	47.2	4.1	20.7		56.2	35.2	3.8	18.2	
May-15	64.0	18.5	4.8	20.5		68.5	16.5	4.7	20.0		51.5	15.5	3.7	18.2	
Jun-15	56.0	20.0	4.1	19.6		67.5	21.5	4.9	18.7		44.5	15.5	3.1	17.4	
Jul-15	41.0	16.5	3.2	16.2		49.0	23.0	3.9	16.4		33.5	17.0	2.5	13.9	
Aug-15	49.9	21.3	4.1	18.3		55.5	24.5	4.5	16.7		38.1	17.3	2.7	14.8	
Sep-15	47.3	20.9	3.3	17.1	BDL	49.3	23.2	3.3	15.3	BDL	32.6	14.1	2.0	14.5	BDL
Oct-15	64.7	41.2	3.7	21.1		69.2	47.2	4.1	20.7		56.2	35.2	3.8	18.2	
Nov-15	64.0	18.5	4.8	20.5		68.5	16.5	4.7	20.0		51.5	15.5	3.7	18.2	
Dec-15	56.0	20.0	4.1	19.6		67.5	21.5	4.9	18.7		44.5	15.5	3.1	17.4	
Jan-16	41.0	16.5	3.2	16.2		49.0	23.0	3.9	16.4		33.5	17.0	2.5	13.9	
Feb-16	49.9	21.3	4.1	18.3		55.5	24.5	4.5	16.7		38.1	17.3	2.7	14.8	
Mar-16	47.3	20.9	3.3	17.1		49.3	23.2	3.3	15.3		32.6	14.1	2.0	14.5	
Min	**41.0**	**16.5**	**3.2**	**16.2**		**49.0**	**16.5**	**3.3**	**15.3**		**32.6**	**14.1**	**2.0**	**13.9**	
Max	**64.7**	**41.2**	**4.8**	**21.1**	BDL	**69.2**	**47.2**	**4.9**	**20.7**	BDL	**56.2**	**35.2**	**3.8**	**18.2**	BDL
Avg.	**53.8**	**23.1**	**3.9**	**18.8**		**59.8**	**26.0**	**4.2**	**18.0**		**42.7**	**19.1**	**3.0**	**16.2**	

BDL= Below detectable limit

Ambient Air Quality Monitoring Results (April-15 to March-16)

Month	Name of Locations																					
	Old Colony (AAQ-1)						Nr. Rain Water Harvesting Pond (AAQ-2)						LPG Yard (AAQ-3)						Between Sinter & Spiral (AAQ-4)					
	Unit- µg/m3																					
	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*
Apr-15	46.0	27.0	3.8	14.4			41.0	24.0	4.5	17.3			56.0	35.0	3.1	12.2			49.0	31.0	3.9	11.4		
May-15	39.0	16.0	2.9	13.5			48.0	19.0	3.7	16.4			41.0	18.0	4.1	14.1			43.0	14.0	4.8	12.3		
Jun-15	28.0	11.0	1.8	12.4			56.0	22.0	3.2	15.7			48	20.0	3.5	13.6			51	18	4.3	11.8		
Jul-15	32.0	16.0	1.2	13.8			64.0	26.0	2.5	16.4			53.0	23.0	4.4	14.5			59.0	21.0	3.6	12.7		
Aug-15	37.0	11.0	1.7	12.6			60.0	23.0	1.9	15.2			57.0	26.0	3.8	13.7			52.0	18.0	2.9	11.8		
Sep-15	28.0	13.0	1.1	9.7	BDL	ND	49.0	21.0	2.3	13.1	BDL	ND	51.0	24.0	3.1	12.6	BDL	ND	47.0	16.0	1.8	10.7	BDL	ND
Oct-15	25.0	10.0	1.6	8.6			34.0	14.0	2.9	11.9			39.0	20.0	2.7	10.5			43.0	13.0	2.4	9.5		
Nov-15	29.0	13.0	1.2	7.5			38.0	16.0	3.5	10.8			44.0	23.0	1.2	9.4			48.0	15.0	3.1	8.9		
Dec-15	33.0	15.0	1.8	6.9			43.0	19.0	2.6	11.5			39	21.0	3.5	10.6			36	13	2.8	9.5		
Jan-16	24.0	11.0	2.3	7.6			48.0	23.0	3.5	12.6			43.0	18.0	4.2	11.5			31.0	15.0	3.7	10.4		
Feb-16	29.0	13.0	1.8	8.3			43.0	19.0	2.6	11.5			48.0	22.0	3.4	10.3			36.0	17.0	3.1	9.5		
Mar-16	24.0	11.0	1.2	7.2			37.0	15.0	2.2	8.4			48.0	20.0	2.9	9.2			40.0	19.0	2.5	8.4		
Min.	**24.0**	**10.0**	**1.1**	**6.9**			**34.0**	**14.0**	**1.9**	**8.4**			**39.0**	**18.0**	**1.2**	**9.2**			**31.0**	**13.0**	**1.8**	**8.4**		
Max.	**46.0**	**27.0**	**3.8**	**14.4**	BDL	ND	**64.0**	**26.0**	**4.5**	**17.3**	BDL	ND	**57.0**	**35.0**	**4.4**	**14.5**	BDL	ND	**59.0**	**31.0**	**4.8**	**12.7**	BDL	ND
Avg.	**31.2**	**13.9**	**1.9**	**10.2**			**46.8**	**20.1**	**3.0**	**13.4**			**47.3**	**22.5**	**3.3**	**11.9**			**44.6**	**17.5**	**3.2**	**10.6**		

Month	Labour Colony (AAQ-5)						New Colony (AAQ-6)						VIP Guest House (AAQ-7)						Weigh Bridge No.-1 (AAQ-8)					
	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*	PM 10	PM2.5	SO_2	NO_2	CO**	Pb*
	Unit-µg/m3																							
Apr-15	65.0	49.0	3.6	11.4			61.0	44.0	12.2	10.2			67.0	40.0	2.9	8.7			71.0	48.0	2.1	8.5		
May-15	49.0	12.0	3.1	12.3			55.0	18.0	3.9	11.5			52.0	11.0	3.1	9.3			59.0	15.0	2.4	10.5		
Jun-15	40.0	14.0	2.6	11.1			44.0	12.0	2.8	10.6			37.0	16.0	2.0	9.9			64.0	24.0	2.8	12.8		
Jul-15	45.0	19.0	2.1	13.4			50.0	17.0	3.3	11.6			42.0	24.0	2.9	3.5			68.0	29.0	4.8	13.9		
Aug-15	49	16	2.8	12.1			42	13.0	4.1	10.6			46.0	22.0	2.2	9.5			63.0	27.0	5.3	14.2		
Sep-15	42	19	3.4	11.2	BDL	ND	54	27	3.9	10.1	BDL	ND	38	15	3.8	11.9	BDL	ND	60	29	4.2	13.8	BDL	ND
Oct-15	45.0	16.0	3.9	10.1			41.0	23.0	2.1	9.1			35.0	21.0	3.3	12.3			38.0	18.0	4.9	14.4		
Nov-15	40.0	19.0	4.8	9.7			35.0	26.0	2.9	8.3			31.0	24.0	3.7	11.2			42.0	21.0	5.5	13.2		
Dec-15	46.0	23.0	4.1	10.7			30.0	20.0	2.2	9.1			40.0	18.0	2.1	12.6			48.0	24.0	4.9	14.7		
Jan-16	40.0	19.0	5.2	11.8			35.0	22.0	3.4	10.2			33.0	14.0	4.2	13.7			54.0	20.0	6.1	15.8		
Feb-16	44	21	4.5	10.9			31	18.0	2.8	11.4			37.0	16.0	3.5	14.5			50.0	24.0	7.4	16.9		
Mar-16	39	18	3.8	9.8			35	16	2.4	10.3			42	21	2.8	13.4			55	22	8.5	15.8		
Min.	**39.0**	**12.0**	**2.1**	**9.7**			**30.0**	**12.0**	**2.1**	**8.3**			**31.0**	**11.0**	**2.0**	**3.5**			**38.0**	**15.0**	**2.1**	**8.5**		
Max.	**65.0**	**49.0**	**5.2**	**13.4**	BDL	ND	**61.0**	**44.0**	**12.2**	**11.6**	BDL	ND	**67.0**	**40.0**	**4.2**	**14.5**	BDL	ND	**71.0**	**48.0**	**8.5**	**16.9**	BDL	ND
Avg.	**45.3**	**20.4**	**3.7**	**11.2**			**42.8**	**21.3**	**3.8**	**10.3**			**41.7**	**20.2**	**3.0**	**10.9**			**56.0**	**25.1**	**4.9**	**13.7**		

- Below Detectable Limit
Not Detectable

FUGITIVE EMISSION RESULTS (APRIL-2015 TO March-16)

Name of Locations

Unit- µg/m3

Months	RMH Junction House (A-1)					RMH Stock House (A-2)					Sinter RMH Yard (A-3)					Sinter 2 Ground Hopper (A-4)					DISP CCM Area (A-5)					Sinter-1 Main to PMD (A-6)				
	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*	PM 10	SO_2	NO_2	CO	Pb*
Apr-15	1384	6	29			1987	6	30			2234	7	27			1241	7	26			915	7	14			1428	6	22		
May 15	972	7	27			1497	6	28			1974	8	25			619	8	24			791	9	32			1428	8	24		
Jun-15	1057	8	26			1564	8	28			1813	9	24			789	7	23			597	10	33			1676	9	25		
Jul 15	1341	9.5	26.3			1720	8.9	27.6			2104	10.3	25.1			931	8	24			668	11	31			1896	11	28		
Aug 15	1420	10	27			1922	10	29			2319	12	27			1013	9	24			712	12	33			2015	11	29		
Sep-15	1597	12	26	BDL	ND	2109	11	27	BDL	ND	1915	13	26	BDL	ND	1234	9	23	BDL	ND	623	13	31	BDL	ND	2254	10	28	BDL	ND
Oct-15	1263	12.6	27.9			1479	11.8	28.5			1135	13.7	26.7			732	10.3	24.2			516	14.4	31.5			924	11.1	29.4		
Nov-15	1121	11.5	26.8			1302	10.7	27.4			1024	12.6	25.6			617	9.2	23.1			420	13.1	30.4			807	10.5	28.3		
Dec-15	1328	12.7	25.6			1211	11.9	26.3			1154	13.8	24.7			764	10.5	21.8			512	14.6	29.1			992	11.2	27.2		
Jan-16	1482	13.8	26.7			1310	12.7	27.2			1246	14.9	25.8			855	11.6	22.9			608	15.7	28.4			1081	12.3	26.1		
Feb-16	1381	12.9	25.8			1243	11.8	26.3			1108	13.7	24.9			746	10.7	21.6			513	14.8	27.5			950	11.4	25.2		
Mar-16	1457	13.8	26.7			1534	12.7	27.2			1211	14.6	25.8			920	11.6	22.5			819	15.7	28.4			1347	12.3	26.1		
Min	**972**	**6**	**26**			**1211**	**6**	**26**			**1024**	**7**	**24**			**617**	**7**	**22**			**420**	**7**	**14**			**807**	**6**	**22**		
Max	**1597**	**14**	**29**	BDL	ND	**2109**	**13**	**30**	BDL	ND	**2319**	**15**	**27**	BDL	ND	**1241**	**12**	**26**	BDL	ND	**915**	**16**	**33**	BDL	ND	**2254**	**12**	**29**	BDL	ND
Avg	**1317**	**11**	**27**			**1573**	**10**	**28**			1603	12	26			**872**	**9**	**23**			**625**	**13**	**29**			**1400**	**10**	**27**		

BDL - Below Detectable Limit
ND - Not Detectable

Month	Ambient Air Quality Monitoring with Respect to Noise (April-2015 to March-2016)													
	NOISE LEVELS [db (A]													
	Admin Building		Old Colony		Near LPG Yard		Near New Colony (School)		Near SDP-2		Near Coating Plant		Near Gate No.2	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Apr-15	50.3	46.3	44.2	42.5	65.3	59.8	46.8	42.7	65.2	61.6	61.3	62.9	62.5	58.4
May-15	49.5	44.2	44.9	40.6	60.2	56.1	45.9	41.9	64.8	60.4	64.1	61.6	63.9	57.1
Jun-15	48.5	44.3	42.3	38.2	58.6	54.5	43.7	39.1	63.9	59.4	63.9	60.1	59.8	54.2
Jul-15	47.2	43.2	41.5	37.1	57.3	53.6	42.5	38.2	62.1	58.5	61.8	59.2	58.6	53.3
Aug-15	46.1	42.1	40.4	36.8	56.2	52.4	41.4	37.1	60.9	57.4	61.1	58.1	57.5	52.4
Sep-15	44.9	40.8	39.3	35.7	55.1	51.3	40.3	36.5	59.8	56.3	60.2	56.9	56.4	51.3
Oct-15	43.8	39.7	38.2	34.6	53.9	50.2	39.2	35.4	57.9	55.2	59.1	54.8	55.3	50.2
Nov-15	42.7	38.6	37.1	33.5	52.8	49.1	38.1	34.3	56.8	54.1	57.9	53.7	54.2	49.1
Dec-15	43.6	39.5	38.3	34.4	53.7	50.2	39.2	35.2	57.7	55.3	58.6	54.6	55.1	50.9
Jan-16	44.5	40.4	39.2	35.3	44.6	51.1	40.1	36.1	58.6	56.2	59.5	55.5	58.1	51.8
Feb-16	45.6	41.5	40.3	36.4	55.7	52.2	41.2	37.2	59.7	57.3	60.6	50.6	59.2	52.9
Mar-16	43.5	39.4	38.2	34.3	53.6	50.1	39.1	35.1	57.6	55.2	58.5	54.5	57.1	50.8
Min.	**42.7**	**38.6**	**37.1**	**33.5**	**44.6**	**49.1**	**38.1**	**34.3**	**56.8**	**54.1**	**57.9**	**50.6**	**54.2**	**49.1**
Max.	**50.3**	**46.3**	**44.9**	**42.5**	**65.3**	**59.8**	**46.8**	**42.7**	**65.2**	**61.6**	**64.1**	**62.9**	**63.9**	**58.4**
Avg.	**45.9**	**41.7**	**40.3**	**36.6**	**55.6**	**52.6**	**41.5**	**37.4**	**60.4**	**57.2**	**60.6**	**56.9**	**58.1**	**52.7**

MONTH	Near Sinter Plant-1		Near Sinter Plant-2		Near BF-1		Near BF-2		Near Main Gate Security Office	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Apr-15	67.1	60.3	64.2	62.8	64.5	60.4	66.3	62.9	59.6	47.8
May-15	66.8	60.9	65.1	61.8	65.7	62.9	64.4	52.1	51.6	46.8
Jun-15	65.7	60.1	64.3	60.9	61.9	57.8	61.1	53.5	50.2	45.6
Jul-15	64.7	58.9	63.4	59.8	60.8	56.1	60.1	52.3	49.3	44.7
Aug-15	63.6	57.8	62.3	58.7	59.7	55.7	58.9	51.2	48.2	43.6
Sep-15	62.5	56.7	61.2	57.6	58.6	54.5	57.8	50.1	47.1	42.5
Oct-15	61.4	55.6	60.1	56.5	57.5	53.4	56.7	48.9	54.9	41.4
Nov-15	62.3	54.5	58.9	55.4	56.4	52.3	55.6	47.8	44.8	40.3
Dec-15	61.2	55.4	59.8	56.3	57.3	53.2	56.5	48.7	54.7	41.2
Jan-16	62.1	56.3	60.7	57.2	58.2	54.1	57.4	49.6	46.6	42.1
Feb-16	63.2	57.4	61.8	58.3	59.3	55.2	58.5	50.1	47.3	43.0
Mar-16	61.1	55.3	59.7	56.2	57.2	53.1	56.4	48.6	45.2	41.1
Min.	**61.1**	**54.5**	**58.9**	**55.4**	**56.4**	**52.3**	**55.6**	**47.8**	**44.8**	**40.3**
Max.	**67.1**	**60.9**	**65.1**	**62.8**	**65.7**	**62.9**	**66.3**	**62.9**	**59.6**	**47.8**
Avg.	**63.5**	**57.4**	**61.8**	**58.5**	**59.8**	**55.7**	**59.1**	**51.3**	**50.0**	**43.3**

Work Place Noise Monitoring (April -2015 to March - 2016)

NOISE LEVELS [dB(A)]

Month	Sinter Plant-1				Sinter Plant-2				Blast Furnace -1						Blast Furnace-2		
	Inside Control Room	Inside Mechanical Room	Inside Electrical Room	Inside Plant office	Inside Control Room	Inside Operator Room	Near Proprtioning Building	Near Crusher House	Nr. Stock House	Inside Control Room	Inside Control Room of Cast House	Inside Laboratory	Inside Control Room of Blower House	Inside Control Room of CPP	Inside control room	Nr. Stock House	Control Room of Blower House
Apr-15	44.7	53.9	60.1	55.2	53.5	63.4	65.3	70.2	66.7	49.3	49.8	46.1	61.2	57.4	62.9	65.8	67.5
May-15	41.2	48.2	47.8	50.2	52.6	61.9	64.8	71.7	65.2	48.8	49.1	45.8	59.2	56.9	62.1	66.2	68.4
Jun-15	40.5	46.7	48.6	49.3	51.7	60.8	63.9	70.1	64.8	47.3	48.6	44.5	58.2	55.4	59.2	65.3	66.8
Jul-15	39.4	45.8	47.5	48.7	50.2	59.8	62.8	69.9	65.8	46.2	47.4	42.9	57.1	53.7	57.5	64.9	67.3
Aug-15	40.5	46.9	48.6	49.8	51.3	60.9	63.5	70.4	66.7	47.3	48.5	44.1	58.6	54.8	58.6	66.2	68.4
Sep-15	41.6	47.5	48.1	50.8	50.2	59.8	62.4	69.3	65.6	46.2	47.4	42.9	57.5	53.7	57.5	65.1	67.3
Oct-15	40.5	46.4	46.9	49.7	49.1	58.7	61.3	68.2	64.5	45.1	46.3	41.8	56.4	52.6	56.4	63.9	65.2
Nov-15	41.6	47.5	48.1	50.8	50.5	59.9	63.2	69.4	65.6	46.2	47.8	42.9	57.5	53.7	57.8	65.1	66.7
Dec-15	43.6	49.5	50.2	52.7	51.4	60.8	64.1	70.3	66.8	47.6	48.2	43.8	58.9	54.5	58.7	66.3	67.6
Jan-16	44.8	50.7	51.4	53.9	52.3	61.7	65.5	71.2	67.9	48.7	49.3	44.9	60.1	55.6	59.6	67.2	69.5
Feb-16	45.9	51.8	50.3	55.2	53.4	62.8	66.7	72.3	69.1	49.8	50.4	46.1	61.2	56.7	60.7	68.3	70.6
Mar-16	43.8	49.7	48.2	53.1	51.3	60.7	65.6	70.2	66.9	47.6	48.3	43.9	59.1	54.6	58.6	66.2	68.5
Min.	**39.4**	**45.8**	**46.9**	**48.7**	**49.1**	**58.7**	**61.3**	**68.2**	**64.5**	**45.1**	**46.3**	**41.8**	**56.4**	**52.6**	**56.4**	**63.9**	**65.2**
Max.	**45.9**	**53.9**	**60.1**	**55.2**	**53.5**	**63.4**	**66.7**	**72.3**	**69.1**	**49.8**	**50.4**	**46.1**	**61.2**	**57.4**	**62.9**	**68.3**	**70.6**
Avg.	**42.3**	**48.7**	**49.7**	**51.6**	**51.5**	**60.9**	**64.1**	**70.3**	**66.3**	**47.5**	**48.4**	**44.1**	**58.8**	**55.0**	**59.1**	**65.9**	**67.8**

NOISE LEVELS [dB(A)]
Pipe Plant

Month	Inside control room of Anealling Furnace of DISP	Inside Control Room - Mill area of Spiral Plant-1	Nr. Pipe Cutting Area of Spiral Plant	Inside JCO Plant	Inside DISP Plant	Inside Coating Plant	Nr. CCM SDP-2	Inside control room of Anneling furnace of SDP-2	Nr. Zinc Coating SDP-2	Nr. Mould Shop
Apr-15	53.5	64.1	73.2	67.9	73.5	70.8	67.3	60.9	71.6	72.8
May-15	52.2	62.8	72.9	68.3	72.7	69.5	66.1	53.2	70.3	72.8
Jun-15	51.5	61.7	71.4	67.3	71.6	68.1	65.2	51.6	69.4	73.8
Jul-15	50.7	60.9	70.8	66.4	72.5	69.1	66.1	50.9	70.4	74.3
Aug-15	51.8	61.7	71.9	67.5	73.6	70.5	67.2	52.1	71.5	75.4
Sep-15	50.7	60.6	70.8	66.4	72.5	69.4	66.1	50.9	70.4	74.3
Oct-15	49.6	59.9	69.7	65.3	71.4	68.3	64.9	49.2	69.8	76.6
Nov-15	50.9	60.1	70.4	66.7	72.8	69.5	65.6	50.9	70.2	77.3
Dec-15	51.4	61.5	71.3	67.2	73.4	70.2	66.1	51.7	72.1	78.6
Jan-16	52.3	62.4	72.2	68.1	74.3	71.1	67.8	52.6	73.5	79.4
Feb-16	53.4	63.5	73.3	69.2	75.4	72.2	68.9	53.7	74.6	80.5
Mar-16	51.3	61.4	72.2	67.1	73.2	70.1	66.8	51.6	72.5	78.4
Min.	**49.6**	**59.9**	**69.7**	**65.3**	**71.4**	**68.1**	**64.9**	**49.2**	**69.4**	**72.8**
Max.	**53.5**	**64.1**	**73.3**	**69.2**	**75.4**	**72.2**	**68.9**	**60.9**	**74.6**	**80.5**
Avg.	**51.6**	**61.7**	**71.7**	**67.3**	**73.0**	**69.9**	**66.5**	**52.4**	**71.4**	**76.2**

STACK MONITORING RESULTS WITH RESPECT TO SINTER-II (APRIL,2015 to MARCH, 2016)									
Month	Stack attached to Sinter Furnace			Stack attached to Discharging end of dedusting system			Stack attached to Fuel crushing deduster system (Flux)		
	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx
	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm
Apr-15	68.0	ND	9.4	42.0	NA		37.0	NA	
May-15	61.0		8.3	37.0			31.0		
Jun-15	56.0	5.4	10.2	32.0			26.0		
Jul-15	47.0	5.6	12.9	37.0			33.0		
Aug-15	41.0	4.2	11.8	28.0			...		
Sep-15	59.0	ND	10.3	21.0					
Oct-15	64.0		11.5	28.0	NA		24.0	NA	
Nov-15	59.0		10.6	34.0			18.0		
Dec-15	36.0		11.7	27.0			15.0		
Jan-16	46.0		9.5	24.0			23.0		
Feb-16	46.0		9.5	24.0			...		
Mar-16	42.0		6.3	29.0					
Min.	36.0	NA		21.0	NA		15.0	NA	
Max.	68.0			42.0			37.0		
Avg.	52.1			30.3			25.9		

Month	Stack attached to Fuel Crushing deduster System (Fuel)			Stack attached to Transfer station no. 4 & 5 dedusting system			Stack attached to Pulverized coal injection		
	PM	SO2	NOx	PM	SO2	NOx	PM	SO2	NOx
	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm
Oct-15	16.0	NA		13.0	NA		19.0	1.8	0.91
Nov-15	13.0			11.0			22.0	1.4	0.87
Dec-15	12.0			8.0			20.0	1.8	0.95
Mar-16	18.0			15.0			...		
Min	12.0	NA		8.0	NA		19.0	1.4	0.9
Max	18.0			15.0			22.0	1.8	1.0
Avg	14.8			11.8			20.3	1.7	0.9

NA Not Applicable

ND-Not Detectable

Annexure-III

STATUS OF GREENBELT & PLANTATIONS

The key objective to strengthen greenbelt in and around the plant premises to minimize the pollution load and to maintain ecological balance including sustainable development.

The following species of trees, shrubs & herbs have been planted in and around the plant premises at different location of ***IPU-Samaghogha of JINDAL SAW LIMITED***. Seasonal flowers of various varieties have also been planted to enhance aesthetic view.

TREES:

Bottle Brush, Peltaphorum, Neem, Arjun, Saru, Ficus Nuda, Cordia, Cassia, Chiku, Khirni, *Prosopis cineraria* (Khezri), Ficus Benjamina, Ficus Golden, Ficus Starlight, Accassia, Jakranda, Bahunia, Ravinia Palm, Foxtail Palm, Jamun, Badam, Ashok, Coconut, Arica Palm, Fan Palm, Anar, Phonix Palm, Guava, Amla, Spathodia, Shisham, Travellers Palm, Bhismarkia Palm, Alastonia, Amaltas, Champa, Karanj, Fishtail Palm, Date Palm, & Washingtonia Palm.

SHRUBS:

Hamelia, Duranta, Acalypha, Tabermontana (Chandni), Lantana, Euphorbia, Madhukamini, Cassiabiflora, Tecoma Capensis, Halmskodia, Dracena, Arelia, Aglonema, Diffenbachia, Petra Volublis, Clematis, Clerodendron, *Quisqualis Indica*, Begnonia Venusta, Gardenia, Manihot, Ixora, Beloprane, Iresine Red, Harsingar, Hibiscus, Ficus Panda, Thuja, Calenchu,Calliandra, Allamanda, Kadvi Mehendi , Croton, Bougainvillea, Rose, Galphamia, Kaner, Nicdivia,*Caesalpinnia pulchirema* , *Lagerstromea indica*, *Nyctanthes arbotritis*, *Jasminum sambak*, *Jasminum humile*, Scheflerra & Yucca,

HERBS:

Strawberry, Vinca, Garbera, Rohea Spathia, Canna Dwarf, Spathyphyllum, Daisy, Asparagus, Fern, Chlorophytum, Chrysenthemum, Silver Dust, Kochea, Marigold, Cosmos, Ageratum, Partulaca, Gompherena & Spider Lily,

Details of Plantations Carried Out During the period of April -2015 to March-2016

Month	No. of Saplings	Species Planted	Location
April-15	142	Nicdivia, Euphorbia & Ficas Panda	VIP Guest House & Pot Plantation
May-15	Nil	---	Land Development activity
June-15	700	Tamarind, Saru, Peltaphorum, Jamun, Mango, Karanj, Cordia, Neem, Bottle Palm & Erica Palm	Samaghogha village, Samaghogha village road side, Bhujpur Village, RMHS boundary wall, Spiral-2 Crane maintenance area, New colony near gate, Coating Plant near LPG area. Spiral-2 pump house & Children Park.
July-15	102	Champa, Badam & Gultora	RO plant, Vikaspuram,Spiral-2, New Colony Electrical Control Room
Aug-15	3760	Coconut, Ber, Anar, Mango, Peltaphorum, Sisam, Ficas Nuda, Kaner Red, Mehendi, Croton, Arelia, Chiku, Desi Rose, Bottle Palm,Bougainvillea	Spiral-1 Lawn, Spiral-2 Crane maintenance area, Cafeteria, Vikaspuram, Chairman Bungalow, Sinter Plant, Outside of Gate no. 2, Near Club House, Fountain Garden, Admin area & Spiral-2 pump house.
Sep-15	1311	Bottle Palm, Peltaphorum, Coconut, Ber, Ficas Nuda, Kaner Red , Karanj, Sisam, Saru, Bougainvillea & Mehendi	Vikas Puram, Spiral-2 Crane maintenance area, Outside of plant, New Coating area, Chairman Bungalow
Oct-15	9157	Coconut, Ber, Anar, Mehendi Kadvi, Mango Kesar, Kaner Red, Arelia, Erica Palm, Desi Rose, English Rose, Ixora Red, Ixora Pink, Ficas Panda, Bougainvillea, Kaner Yellow, Hibiscas Red, Acalypha, Tecoma, Song of India, Chandni, Hamelia Dwarf.	Chairman Bungalow, Chairman Bungalow to HR building through fencing line, GM guest house to old colony corner, E & I Control Room(Colony), Admin Block, Water Treatment Plant, Outside temple, Cafeteria, JCO road & old colony boundary wall, Inside temple, Admin Block, VIP Guest House, New Coating Plant, Spiral-2, Dispatch road etc.
Nov-15	13203	Kadvi Mehendi, Ficas Nuda, Kaner Red, Ixora Red, Ixora Pink, Ficas Panda, Bougainvillea, Kaner Yellow,Hibiscas Red, Acalypha, Tecoma, Madhumalti, Chandni, Hamelia Dwarf, Cordia, Schefflera, Euphorbia Pink, Phoenix Palm, Ashoka, Zed Plants, Crysenthimum, Champa, Nicdivia,	Spiral-1, DISP trolley line, BF lab (Road side), Mould shop (Road side), SDP-2 trolley line, CPP (near LDO tank), New coating plant, old colony to Env. office road side, SDP-2 (Behind canteen), Cricket Ground, Spiral-2 pump house, Boundary Wall (Samaghogha to Gate no.2), Spral-2 (Back side of mm workshop), Fencing line (Diesel Pump), Chairman Bungalow, Savitrivihar, Admin Block.
Dec-15	5299	Tamarind, Saru, Peltaphorum, Jamun, Mango, Karanj, Cordia, Neem, Bottle Palm & Erica Palm	Samaghogha village, Samaghogha village road side, Bhujpur Village, RMHS boundary wall, Spiral-2 Crane maintenance area, New colony near gate, Coating Plant near LPG area, Spiral-2 pump house & Children Park.
Jan-16	177	Arelia, Euphorbia, Nicdivia, Champa, Ashoka	RO plant, Vikaspuram,Spiral-2, New Colony Electrical Control Room
Feb-16	--	--	--
Mar-16	9786	Ixora Pink, Bougainvillea, Tecoma, Kaner Yellow, Ficus Nuda, Kadvi	SDP-2, GM guest House, Sinter Plant, Coating Plant,Spiral-2, Water Treatment Plant, Back Side

		Mehebdi, Chiku, Mehendi, Guava, Banana, Ficas Panda, Ixora Red, Cordia, Nicdivia, Hibiscas, Phoenic Palm,	of Environment Office, Switch Yard, Temple area,Gate no.-2, Samaghogha Gram Panchayat, Cricket Ground, Nace Lab area.
Total	**43637**		

Numbers of total plantations as on dated 31st March, 2015 : **121875**
Number of saplings planted during - 1st April,15 to 31st March -16 : **43637**
Total Numbers of Plants : **165512**

Annexure-IV

CSR EXPENSES FOR THE PERIOD OF APRIL, 2015 TO MARCH, 2016 AS ACTIVITIES CARRIED OUT BY JINDAL SAW LIMITED, IPU-SAMAGHOGHA-GUJARAT

Nature of Activities	Whom to paid	Amount (Rs.)
Medical Expenses	Medical camps, Mobile dispensaries, General Medical Treatment in OPD & Indoor, Blood Donation Camp & Medicines etc.	3191331.00
Expenses incurred under Education program	Salary paid to teachers	222699.00
	Annual Sports activities at Samaghogha School	15000.00
Environmental Expenses	Incurred by the company	15240804.00
Social Welfare Expenses	Animal Husbandry - Grass distribution at Samaghogha & Bhujpur	1880103.00
	Salary paid to security at Bhujpur village	104000.00
	Donation to Samajwadi at Bhujpur	200000.00
	Infrastructure Development – Construiction of Overhead tank at Samaghogha Village	2,45,010.00
Other Expenses	Donation for Navaratri Mahotsav at Mundra	5000.00
	Misc. Expenses related to CSR	556010.00
Total		**21659957.00**

JINDAL

JINDAL SAW LTD.

JSL/ENV/F-12/GPCB/2015-16 **Date: - 30.07.2016**

To,

The Unit Head - Kutch
Gujarat Pollution Control Board
Paryavaran Bhavan
Sector – 10 A
Gandhinagar – 382 010

Sub: -Environmental Statement (Form-V) for Slag Grinding Unit (GPCB ID-31304) of Jindal Saw Limited for the year 2015-2016.
Ref: *- Slag Grinding Unit (PCB ID-31304, Consent Order No. AWH-43227 issued on 30.08.2011).*

Dear Sir,

This has reference to the above; we are submitting herewith **Environmental Statement (Form-V)** for **Slag Grinding Unit** of **Jindal Saw Limited,** Survey No. - 7, Village– Pragpar, Taluka: Mundra, Dist- Kutch (Gujarat) for the period ***April-2015 to March-2016.***

Kindly acknowledge receipt for the same.

Thanking you

Yours faithfully,

For **JINDAL SAW LTD.**

A. K. Pandey
AGM- Environment

Encls: as above

CC:
Regional Officer
Gujarat Pollution Control Board
Room No. 215-217 Administrative office Building
Second Floor, Kandla Port Trust, Sector-8
Gandhidham, Kutch
Gujarat- 370201

Form –V

{See Rule 14}

Environment Statement for the period of April 2015 to March 2016

Slag Grinding Unit (GPCB ID: 31304)

PART-A

(i) Name and address of the owner / occupier of the industry operation and process
Mr. H. S. Chaudhary
JINDAL SAW LIMITED
A-1, UPSIDC Industrial Area
Nandgaon Road, Kosi Kalan
District Mathura-281403 (U.P.)

(ii) Industry category primary-(STC code) Secondary-(SIC Code) : **Red**
(iii) Production Capacity: **5145.83 MT / Month**
(iv) Year of Establishment: **December-2006**
(v) Date of last Environment statement submitted: **25.08.2015**

PART –B

Water and Raw Material Consumption

(i) Water consumption: **0.78 m^3/day**
Process - **Not Applicable**
Cooling - **0.15 m^3/Day**
Domestic – **0.63m^3/Day**

Name of Products	Water consumption per unit of product output	
	During the previous financial year	During the current financial year
Ground Granulated Blast Furnace Slag	**0.0012 KL/MT**	**0.0014 KL/MT**

(ii) **Raw Material Consumption –**

Sr. No.	Nature of Raw Material	Name of Product	Consumption of Raw material per unit of product	
			During the Previous Financial Year	During the Current Financial Year
1.	**Blast Furnace Slag**	**Ground Granulated Blast Furnace Slag**	**1.17 MT/MT**	**1.13 MT/MT**

Month wise raw material consumption & production detail is enclosed as **Annexure –I**

- Industry may use codes if disclosing details would raw material would violate contractual obligations, otherwise all industries have to name the raw material used.

PART-C

Pollution discharged to environment / unit of output
(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharge (Mass /Day)	Concentration of pollutants in discharges (Mass / Volume)	Percentage of variation from prescribed standards with reasons)
(a) Water	**No discharge of treated domestic wastewater, it is being reused for plant cooling, dust suppression & horticulture purposes.**		**Results are well below the permissible limits**
(b) Air	**Monitoring Results (Ambient Air, Stack Emission, Noise Level, and Water & Wastewater Quality) is enclosed as Annexure-II.**		**Results are well below the permissible limits**

PART-D

(As specified under [Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008)]

Hazardous Waste	Total Quantity (KL)	
	During the previous financial year.	During the current financial year.
(a) From Process	Not applicable	Not applicable
(b) From Pollution Control Facilities	Not applicable	Not applicable
(c) Others (Used Oil)	NIL	**0.430 KL**

Note: Used oil is reused in plant premises for lubricating purpose.

PART- E

Solid Waste

Solid waste	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
(a) From Process	**NA**	**NA**
(b) From Pollution Control Facilities	**NA**	**NA**
(c) (1) Quantity recycled or re-utilized within the unit	**NA**	**NA**
(2) Sold	**NA**	**NA**
(3) Disposed	**NA**	**NA**

PART- F

PLEASE SPECIFY THE CHARACTERIZATION (in terms of composition and quantum) of hazardous as well as solid wastes and indicates disposal practice adopted for both these categories of wastes.

Used oil is reused in plant premises for lubricating purpose.

PART- G

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

(i) Provided hood at material loading point and covered the belt conveyer to avoid fugitive emissions.

(ii) All the stacks attached with Bag filters & materials recycled & reused in process.

(iii) Wind breaking wall is provided all along periphery of the plant.

(iv) Regular plantations are being carried out at in and around the plant premises.

(v) No use of water in the process and achieved ZERO discharged plant.

(vi) Reutilization of BF Slag as solid waste generated from Blast Furnace located at IPU-Samaghogha.

PART- H

Additional measures / investment proposed for environment protection including abatement of pollution, prevention of pollution.

(i) Provided hood at material loading point and covered the belt conveyer to avoid fugitive emissions.

(ii) All the stacks attached with Bag filters & materials recycled & reused in process.

(iii) Wind breaking wall is provided all along periphery of the plant.

(iv) Regular plantations are being carried out at in and around the plant premises.

(v) No use of water in the process and achieved ZERO discharged plant.

(vi) Reutilization of BF Slag as solid waste generated from Blast Furnace located at IPU-Samaghogha.

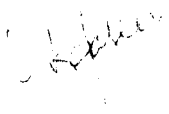
PART – I

Any other particulars for improving the quality of the environment.

The followings factors which are directly responsible to maintain pollution levels through continual improvements:

- Certified with IMS (ISO 9001:2008, OHSAS 18001:2007 & ISO 14001:2004) from ***BUREAU VERITAS***.
- Regular environmental monitoring carried out for stack emission, ambient air quality and Noise level reports are submitted to Gujarat Pollution Control Board. All results are within the norms prescribed by the Gujarat Pollution Control Board.
- Periodic maintenance of all pollution control measures.
- Green belt has been developed by covering ***10.5 acres*** area within plant premises and planted more than ***28000 saplings***. The detail of plantations is enclosed as **Annexure-III**.
- Regular housekeeping to reduce fugitive emissions.
- Regular water sprinkling is being carried out through water tanker for minimizing fugitive emission.
- CSR activities as carried out in the surrounding area along with cost incurred during ***2015-2016*** is enclosed as **Annexure –IV**

(Authorized Signatory)



Name: **V. Rajasekaran**
Designation: **Vice President**

Address: **JINDAL SAW LIMITED**
Village: Pragpar,
Taluka: Mundra
Dist.: Kutch
Gujarat-370415

Annexure – I

Slag Grinding Plant (PCB ID: 31304)

Raw Material Consumption (MT/Month)

Month	Blast Furnace Slag (MT)
Apr-15	4050.16
May-15	4182.85
Jun-15	3659.901
Jul-15	2419.657
Aug-15	3449.008
Sep-15	3631.179
Oct-15	4830.034
Nov-15	4449.231
Dec-15	3134.784
Jan-16	4526.518
Feb-16	2466.670
Mar-16	2451.901
Total	**43251.893**

Production of SGU

Month	Ground Granulated Blast Furnace Slag (MT)
Apr-15	3523.637
May-15	3618.169
Jun-15	3202.41
Jul-15	2056.708
Aug-15	3000.638
Sep-15	3268.059
Oct-15	4298.734
Nov-15	4004.311
Dec-15	2815.034
Jan-16	4073.868
Feb-16	2220.00
Mar-16	2206.711
Total	**38288.279**

Details of Water Consumption

Month	Water Consumption (KL)	
	Cooling	Domestic
Apr-15	5.0	27
May-15	5.0	28.0
Jun-15	5.0	20.0
Jul-15	4.0	12.0
Aug-15	5.0	15.0
Sep-15	6.0	15.0
Oct-15	4.0	16.0
Nov-15	4.0	18.0
Dec-15	4.0	18.0
Jan-16	4.0	21.0
Feb-16	4.0	18.0
Mar-16	4.0	21.0
Total	**54.0**	**229.0**

Annexure- II

Ambient Air Quality Monitoring Results (April 2015 - March 2016)

Month	Near Security Gate				Near Bachelor Colony			
	Unit-µg/Nm3							
	PM10	PM2.5	SO2	NO2	PM10	PM2.5	SO2	NO2
Apr-15	54.0	42.0	14.2	16.3	42.0	31.0	15.1	17.4
May-15	46.0	28.0	12.2	17.2	38.0	20.0	13.5	16.7
Jun-15	41.0	23.0	7.4	18.5	33.0	16.0	6.5	17.4
Jul-15	44.0	25.0	13.1	18.1	39.0	13.0	13.9	17.8
Aug-15	44.0	25.0	13.1	18.1	39.0	13.0	13.9	17.8
Sep-15	52.0	23.0	13.4	16.5	43.0	14.0	11.6	15.4
Oct-15	57.0	27.0	12.3	17.6	48.0	16.0	10.5	16.5
Nov-15	52.0	22.0	11.2	16.5	43.0	13.0	9.4	15.4
Dec-15	46.0	24.0	10.5	15.6	38.0	16.0	8.7	14.8
Jan-16	40.0	21.0	9.6	14.5	33.0	14.0	7.8	13.9
Feb-16	44.0	19.0	8.7	13.6	37.0	16.0	6.9	12.8
Mar-16	49.0	22.0	7.8	12.7	42.0	19.0	5.8	11.9
Minimum	**40.0**	**19.0**	**7.4**	**12.7**	**33.0**	**13.0**	**5.8**	**11.9**
Maximum	**57.0**	**42.0**	**14.2**	**18.5**	**48.0**	**31.0**	**15.1**	**17.8**
Average	**47.4**	**25.1**	**11.1**	**16.3**	**39.6**	**16.8**	**10.3**	**15.7**

Month	Near New Canteen				Near Old Coke Oven			
	Unit-µg/Nm3							
	PM10	PM2.5	SO2	NO2	PM10	PM2.5	SO2	NO2
Apr-15	70.0	37.0	13.4	15.3	76.0	52.0	14.6	16.7
May-15	54.0	15.0	11.3	16.1	55.0	29.0	12.8	17.9
Jun-15	49.0	20.0	8.2	16.9	59.0	26.0	6.2	18.8
Jul-15	54.0	25.0	12.4	16.5	62.0	30.0	14.0	18.3
Aug-15	57.0	28.0	11.5	17.6	66.0	26.0	13.5	17.4
Sep-15	46.0	19.0	10.8	14.5	60.0	28.0	12.4	16.3
Oct-15	52.0	21.0	11.4	15.6	54.0	25.0	13.2	17.4
Nov-15	47.0	18.0	10.3	14.5	49.0	20.0	12.1	16.3
Dec-15	40.0	21.0	11.4	13.5	44.0	18.0	13.3	17.2
Jan-16	35.0	24.0	10.5	12.6	38.0	16.0	12.4	16.3
Feb-16	40.0	20.0	9.6	11.7	46.0	24.0	13.5	15.4
Mar-16	45.0	16.0	8.7	10.8	51.0	20.0	12.6	14.5
Minimum	**35.0**	**15.0**	**8.2**	**10.8**	**38.0**	**16.0**	**6.2**	**14.5**
Maximum	**70.0**	**37.0**	**13.4**	**17.6**	**76.0**	**52.0**	**14.6**	**18.8**
Average	**49.1**	**22.0**	**10.8**	**14.6**	**55.0**	**26.2**	**12.6**	**16.9**

Month	Near Staff Colony				Admin Office Coke Oven			
	Unit-µg/Nm3							
	PM10	PM2.5	SO2	NOx	PM10	PM2.5	SO2	NO2
Apr-15	51.0	40.0	11.5	15.8	59.0	34.0	10.2	18.2
May-15	42.0	25.0	9.7	14.2	50.0	22.0	8.8	15.3
Jun-15	37.0	18.0	10.3	14.8	43.0	14.0	9.2	16.1
Jul-15	33.0	21.0	10.6	14.2	49.0	17.0	9.6	15.7
Aug-15	39.0	13.0	9.7	13.8	54.0	19.0	8.6	14.2
Sep-15	35.0	17.0	8.9	12.7	58.0	25.0	7.9	13.1
Oct-15	30.0	20.0	9.6	13.8	50.0	23.0	8.5	14.2
Nov-15	26.0	15.0	8.5	12.7	45.0	21.0	7.4	13.1
Dec-15	30.0	13.0	9.5	13.9	34.0	19.0		12.5
Jan-16	26.0	11.0	8.7	12.8	30.0	15.0	7.2	11.6
Feb-16	31.0	15.0	7.6	11.9	35.0	11.0	6.3	10.7
Mar-16	36.0	18.0	6.7	10.3	40.0	13.0	5.4	9.8
Minimum	**26.0**	**11.0**	**6.7**	**10.3**	**30.0**	**11.0**	**5.4**	**9.8**
Maximum	**51.0**	**40.0**	**11.5**	**15.8**	**59.0**	**34.0**	**10.2**	**18.2**
Average	**34.7**	**18.8**	**9.3**	**13.4**	**45.6**	**19.4**	**8.1**	**13.7**

FUGITIVE EMISSION RESULTS (APRIL-2015 TO March-16)			
Months	Name of Locations		
	Near Ground Hopper (A-1)		
	Unit- µg/m3		
	PM 10	SO_2	NO_2
Apr-15	1458	BDL	BDL
May-15	1247		
Jun-15	1124		
Jul-15	1135		
Aug-15	1397		
Sep-15	1735		
Oct-15	1509		
Nov-15	1367		
Dec-15	1470		
Jan-16	1582		
Feb-16	1628		
Mar-16	1791		
Min	**1124**	**BDL**	**BDL**
Max	**1791**		
Avg.	**1454**		

Month	Ambient Air Quality Monitoring with Respect to Noise (April 2015 - March 2016)					
	NOISE LEVELS [dB(A)]					
	Nr. Main Gate		Nr. Bachelor		Admin	
	Day	Night	Day	Night	Day	Night
Apr-15	55.3	46.5	45.2	43.4	48.7	42.1
May-15	49.1	44.9	44.9	40.1	46.7	41.8
Jun-15	48.5	40.2	43.3	38.3	44.6	40.1
Jul-15	47.4	39.1	42.2	37.2	43.5	39.3
Aug-15	46.3	37.9	41.1	36.1	42.4	38.2
Sep-15	45.2	36.8	39.9	35.9	41.3	37.1
Oct-15	44.1	35.7	38.7	34.8	40.2	36.8
Nov-15	42.9	34.6	37.6	33.7	39.1	35.7
Dec-15	43.8	35.5	38.5	34.6	40.5	36.5
Jan-16	44.7	36.4	39.4	35.5	41.4	37.4
Feb-16	45.8	37.5	40.5	36.6	42.5	38.5
Mar-16	43.7	35.4	38.4	34.5	40.4	36.4
Minimum	**42.9**	**34.6**	**37.6**	**33.7**	**39.1**	**35.7**
Maximum	**55.3**	**46.5**	**45.2**	**43.4**	**48.7**	**42.1**
Average	**46.4**	**38.4**	**40.8**	**36.7**	**42.6**	**38.3**

Month	Near Store		Plant Boundary (Behind coke		Staff Colony	
	Day	Night	Day	Night	Day	Night
Apr-15	46.5	42.6	67.4	61.2	47.8	43.7
May-15	45.2	41.7	62.5	57.2	45.1	40.2
Jun-15	42.5	39.2	58.9	54.7	45.8	41.4
Jul-15	41.6	40.1	57.8	53.6	44.7	40.8
Aug-15	40.5	39.6	56.7	52.5	43.6	39.8
Sep-15	39.4	38.5	55.6	51.4	42.5	38.7
Oct-15	41.2	36.4	54.5	50.3	41.4	37.6
Nov-15	40.1	35.3	53.4	49.2	40.3	36.5
Dec-15	41.7	34.8	54.3	50.1	41.2	37.4
Jan-16	42.6	35.7	55.2	51.6	42.1	38.5
Feb-16	43.7	36.8	56.3	52.7	43.2	39.6
Mar-16	41.6	34.7	54.2	50.6	41.1	37.5
Minimum	**39.4**	**34.7**	**53.4**	**49.2**	**40.3**	**36.5**
Maximum	**46.5**	**42.6**	**67.4**	**61.2**	**47.8**	**43.7**
Average	**42.2**	**38.0**	**57.2**	**52.9**	**43.2**	**39.3**

Month	Work Place Noise Monitoring (April 2015 - March 2016)					
	NOISE LEVELS [dB(A)]					
	Near Slag Grinding Mill	Nr. Silo	SGU Office	Inside Control Room	Inside Packing Area	Inside QC Laboratory
Apr-15	72.3	73.1	64.8	63.7	70.5	62.2
May-15	74.4	69.5	62.3	60.4	68.2	59.9
Jun-15	73.2	68.4	61.2	59.3	67.1	58.7
Jul-15	74.1	67.6	60.3	58.2	66.3	57.6
Aug-15	78.3	66.5	59.2	57.1	67.4	56.5
Sep-15	79.4	67.6	60.3	56.5	66.3	55.4
Oct-15	80.1	68.4	59.2	55.4	65.2	54.3
Nov-15	78.9	67.3	58.1	54.3	64.1	53.2
Dec-15	79.8	68.2	59.5	55.2	65.4	54.1
Jan-16	80.9	69.3	60.6	56.3	66.5	55.2
Feb-16	82.1	70.4	61.7	57.4	67.6	56.3
Mar-16	80.4	68.5	59.8	55.5	65.7	54.4
Minimum	**72.3**	**66.5**	**58.1**	**54.3**	**64.1**	**53.2**
Maximum	**82.1**	**73.1**	**64.8**	**63.7**	**70.5**	**62.2**
Average	**77.8**	**68.7**	**60.6**	**57.4**	**66.7**	**56.5**

Annexure-III

STATUS OF GREENBELT & PLANTATIONS

The key objective to strengthen greenbelt in and around the plant premises to minimize the pollution load and to maintain ecological balance including sustainable development.

The following species of trees, shrubs & herbs have been planted in and around the plant premises at different location of ***Pragpar of Jindal Saw Limited***.

TREES:

Peltaphorum, Cassia, Arjun, Neem, Accassia, Cordia, Royal Palm, Chiku, Gulmohar, Ashok, Meetha Neem, Bottle Brush, Saru, Jamun, Badam,Arica Palm, Anar, Spathodia, Vismarkia Palm, Champa, Karanj, Cycus, Christmas Tree

SHRUBS:

Bougainvillea, Clerodendron, Song of India, Furcaria Forcata, *Caesalpinnia pulchirema*, Calliandra, Tecoma Capensis, Nerium , Thevatia , Euphorbia, Tabermontana (Chandni), Ixora, Iresine Red, Hibiscus, Ficus Panda, Ficus Blacki.

HERBS:

Spider Lily

Details of Plantations Carried Out During the period of April -2015 to March-2016

Month	No. of Saplings	Species Planted	Location
Apr-15	....	...	....
May-15	...	...	....
Jun-15	135	Neem, Peltoforum, Nerium Oleander	SGU slag yard, old admin road side.
Jul-15	172	Mango, Euphorbia, Bougainvillea	Power plant, admin road
Aug-15	740	Mango, Bougainvillea	Power plant, SGU , store yard ,worker colony, add road,
Sep-15	260	Mango	MCC room, SGU, store yard,
Oct-15	62	Peltoforum	New screen side, crusher plant
Nov-15	---	---	---
Dec-15	---	---	---
Jan-16	1650	Clerodendron inermi	SGU, security gate , MCS colony
Feb-16	1825	Thevetia peruvina nerium oleander	Worker colony ,coal yard, power plant
Mar -16	770	Thevetia peruvina , Nerium oleander ,	Power plant no 4, new coke cutter area, D M plant
Total	**5614**		

Numbers of total plantations as on dated 31st March, 2015 : 23165
Number of saplings planted during the current financial year : 5614
Total Numbers of Plant as on 31st March, 2016 : 28779

Annexure-IV

CSR EXPENSES FOR THE PERIOD OF APRIL, 2015 TO MARCH, 2016 AS ACTIVITIES CARRIED OUT BY JINDAL SAW LIMITED, IPU-SAMAGHOGHA-GUJARAT

Nature of Activities	Whom to paid	Amount (Rs.)
Medical Expenses	Medical camps, Mobile dispensaries, General Medical Treatment in OPD & Indoor, Blood Donation Camp & Medicines etc.	3191331.00
Expenses incurred under Education program	Salary paid to teachers	222699.00
	Annual Sports activities at Samaghogha School	15000.00
Environmental Expenses	Incurred by the company	15240804.00
Social Welfare Expenses	Animal Husbandry - Grass distribution at Samaghogha & Bhujpur	1880103.00
	Salary paid to security at Bhujpur village	104000.00
	Donation to Samajwadi at Bhujpur	200000.00
	Infrastructure Development – Construiction of Overhead tank at Samaghogha Village	2,45,010.00
Other Expenses	Donation for Navaratri Mahotsav at Mundra	5000.00
	Misc. Expenses related to CSR	556010.00
Total		**21659957.00**

JINDAL

JINDAL SAW LTD.

JSL/ENV/F-12/GPCB/2015-16

Date: - 30/07/2016

To,
The Member Secretary
Gujarat Pollution Control Board
Paryavaran Bhavan
Sector – 10 A
Gandhinagar – 382 010

Sub: - Environmental Statement (Form-V) for Coke Oven & Waste Heat Recovery Power Plant (GPCB ID-18035) of Jindal Saw Ltd. for the year 2015-2016.

Ref: *- Coke Oven & Waste Heat Recovery Power Plant (PCB ID-18035, Consent Order No. - AWH -60841 Issued on 01.03.2014)*

Dear Sir,

This has reference to the above; we are submitting herewith **Environmental Statement (Form-V)** for **Coke Oven & Waste Heat Recovery Power Plant** of **Jindal Saw Limited,** Survey No.- 5,6,7, 23, 24, 24/2, 25, 27, 28 and 39 Village-Pragpar, Taluka: Mundra, Dist: Kutch (Gujarat) for the period ***April, 2015 to March,2016.***

Kindly acknowledge receipt of the same.

Thanking you

Yours faithfully,

For **JINDAL SAW LTD.**

A.K.Pandey
AGM- Environment

Encls: As above

CC:
Regional Officer
Gujarat Pollution Control Board
Room No. 215-217 Administrative office Building
Second Floor, Kandla Port Trust, Sector-8
Gandhidham, Kutch
Gujarat- 370201

Village : Samaghoga Mandvi Road, Mundra Taluka, Distt. Kutch - 370 415 Phone :91-(0) 2838 240 755 - 756, 240 773 Fax : 91-(0) 2838 240 700
Corporate Office : Jindal Centre, 12 Bhikaiji Cama Place, New Delhi 110066 Phone : +91 (11) 26188360-74 Fax : +91 (11) 26170691
Regd. Off. : A-1, UPSIDC Indl. Area, Nandgaon Road, Kosi Kalan, Distt. Mathura (U.P.) - 281403 Website :

FORM – V
(See rule 14)

Environmental statement for the period April 2015 to March 2016
WHRPP and Coke Oven (PCB ID: 18035)

PART – A

(i) Name and address of the owner/occupier of the industry operation or process.

Mr. H. S. Chaudhary
JINDAL SAW LIMITED
A-1, UPSIDC Industrial Area
Nandgaon Road, Kosi Kalan
District Mathura-281403 (U.P.)

(ii) Industry category Primary-(STC code) Secondary-(SIC Code) : **Red**

(iii) Production Capacity: **(1) Low Ash Metallurgical Coke-166670 MT/Month**
(2) Co-power generation from waste heat recovery-30 MW

(iv) Year of Establishment : **2004 (Coke Oven Plant), 2006 (WHRPP 15 MW) &**
2009 (WHRPP 15 MW)

(v) Date of the last environmental statement submitted: **25.08.2015**

PART – B

Water and Raw Material Consumption

(i) Water consumption **m^3/ Day**
Process - **547.78**
Cooling - **269.34**
Domestic - **22.32**

Name of Products	Process water consumption per unit of product output	
	During the previous Financial Year	During the current Financial Year
(i) Low Ash Metallurgical Coke	0.36 KL/MT	**0.61 KL/MT**
(ii) Power	0.0006 KL / KWH	**0.00051 KL/KWH**

(ii) **Raw material consumption**:

*Name of Raw materials	Nature of Products	Consumption of raw material per unit of output	
		During the previous Financial Year	During the current Financial Year
Low Ash Coking Coal	**Low Ash Metallurgical Coke**	1.392 MT/MT	**1.369 MT/MT**
Waste Heat from coke oven	**Power**	9.93 Nm^3/KWH	**9.31** Nm^3/KWH

Month wise raw material consumption & production detail is enclosed as **Annexure- I**

*Industry may use codes if disclosing detail of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

PART – C

Pollution discharged to environment/unit of output
(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharge (Mass/Day)	Concentration of pollutants discharges (Mass/Volume)	Percentage of variation from prescribed standards with reasons
(a) Water	**No discharge of treated domestic wastewater, it is being reused for plant cooling, dust suppression and horticulture purposes. (Monitoring results of Water & Wastewater Quality is enclosed as Annexure II).**		**Results are well below the permissible limits**
(b) Air	**Monitoring Results (Ambient Air, Stack Emission & Noise Level are enclosed as Annexure-II).**		**Results are well below the permissible limits**

PART – D

HAZARDOUS WASTES

[As specified under Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008)]

Hazardous Wastes	**Total Quantity (Kg)**	
	During the Previous Financial Year	During the Current Financial Year
(a) From process	Not applicable	**Not applicable**
(b) From pollution control facilities		
(c) Others		
(i) Used Oil	0.90 KL	***1.790 KL**
(ii) Waste Residue	Nil	**Nil**
(iii) Used Ion Exchange Resins	Nil	**Nil**

***Used Oil reused in machinery for lubrication purpose.**

PART – E

SOLID WASTES

Solid Waste	Total Quantity (Kg)	
	During the previous Financial Year	During the current Financial Year
(a) From process	Not applicable	**Not applicable**
(b) From pollution control facilities		
(c) (1) Quantity recycled or re-utilized within the unit		
(2) Sold		
(3) Disposed		

PART – F

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

Used oil: Used oil is reused in machinery for lubrication.

PART – G

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

1. Company has installed Air cooled condenser instead of Cooling Tower at Waste Heat Recovery Power Plant to reduce water consumption.
2. Waste Heat Recovery Power Plant (WHRPP) is a CDM Project, registered with MoEF Govt. of India, New Delhi.
3. Company has developed a modified technology coke quenching tower instead of manual quenching and saving about 50% water consumption.
4. Company has developed suitable greenbelt & plantation around coal / coke yard and also installed water sprinkling system.
5. Wind breaking wall is provided at all along periphery of the plant.
6. All the conveyor belt and screening systems are fully covered to control fugitive emissions during handling of materials.

PART – H

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

Waste Heat Recovery Power plant with capacity of **30 MW** under CDM project to utilize waste heat from Coke oven plant. This project consists of 4 numbers of waste heat recovery boilers connected to the coke ovens. The each boiler receives around 45000-68000 Nm3/hr waste gas at 1065 Deg. C approximately. The waste gas does not contain any volatile gases and the only green house gas (GHG) present in it is CO_2.

Air Pollution: The waste gas emanating from the non-recovery based coke ovens after passing through the waste heat recovery boilers are let into the atmosphere through the Chimneys. The temperature of these gases at the chimney exit is around 150 Deg C.

Water Pollution: Since the plant is designed for water re-circulation system with air cooled condenser hence there is negligible waste water discharge. The small quantity of wastewater mainly comprise of blow down of cooling water circuit and boilers. This is being collected in the neutralization tank and is being used for quenching. There is no scope for any wastewater discharge outside the plant premises.

PART – I

Any other particulars for improving the quality of the environment.

The followings factors which are directly responsible to maintain pollution levels through continual improvements:

- Certified with IMS (ISO 9001:2008, OHSAS 18001:2007 & ISO 14001:2004) from ***BUREAU VERITAS***.
- Regular environmental monitoring carried out for stack emission, ambient air quality and Noise level reports are submitted to Gujarat Pollution Control Board. All results are within the norms prescribed by the Gujarat Pollution Control Board.
- Periodic maintenance of all pollution control measures.
- Green belt has been developed by covering ***10.5 acres*** area within plant premises and planted more than ***28000 saplings***. The detail of plantations is enclosed as **Annexure-III**.
- Regular housekeeping to reduce fugitive emissions.
- Regular water sprinkling is being carried out through water tanker for minimizing fugitive emission.
- CSR activities as carried out in the surrounding area along with cost incurred during ***2015-2016*** is enclosed as **Annexure –IV**

(Authorized Signatory)

Name: **V. Rajasekaran**
Designation: **Vice President**

Address: **JINDAL SAW LIMITED**
Village: Pragpar,
Taluka: Mundra
Dist.: Kutch
Gujarat-370415

Annexure – I

Raw Material Consumption

Month	Coal Consumption (MT)	Waste Heat (Nm^3/month)				
		Boiler-1	Boiler-2	Boiler-3	Boiler-4	Total
Apr-15	39,943.606	37599102	38591352	42337080	42402696	**160930230**
May-15	41,314.588	30858810	34900270	42584205	39303000	**147646285**
Jun-15	36,477.637	29487175	2868325	39967975	36210370	**108533845**
Jul-15	37,287.988	32726695	23764420	42786675	39582885	**138860675**
Aug-15	39,462.373	34771245	36823735	43763295	40434450	**155792725**
Sep-15	34,815.000	34535030	36117075	42030390	39721835	**152404330**
Oct-15	35,986.490	35775655	38417690	41212570	39920335	**155326250**
Nov-15	35,544.380	34201550	38233085	39698015	38578475	**150711125**
Dec-15	36,819.990	35803445	39435995	40480105	38068330	**153787875**
Jan-16	36,713.510	37871815	41135155	38608250	44815345	**162430565**
Feb-16	34,780.360	33475040	38058405	43100305	42639785	**157273535**
Mar-16	36,139.850	38659860	36117075	47771010	45359235	**167907180**
Total	**445,285.772**	**415765422**	**404462582**	**504339875**	**487036741**	**1811604620**

Month wise Production Coke Oven & WHRPP

Month	Low Ash Metallurgical Coke (MT)	Co- Power Generation from WHRPP (KWH)
Apr-15	29,170.500	15370000
May-15	30,172.000	15868600
Jun-15	26,644.000	11658200
Jul-15	27,224.000	14955100
Aug-15	28,827.500	16767400
Sep-15	25,446.000	16644400
Oct-15	26,294.000	16928800
Nov-15	25,973.000	16436600
Dec-15	26,902.500	16758000
Jan-16	26,809.500	17695100
Feb-16	25,403.000	17202300
Mar-16	26,402.000	18231400
Total	**325,268.000**	**194515900**

WHRPP & Coke Oven Plant

Water Consumption (KL)			
Month	**Process Cooling**	**Process Biodegradable**	**Domestic**
Apr-15	10019	13668	681
May-15	10855	16929	832
Jun-15	6771	16880	631
Jul-15	7422	14565	697
Aug-15	7842	14118	526
Sep-15	7112	15713	628
Oct-15	9111	16232	809
Nov-15	7626	15297	613
Dec-15	5734	18233	625
Jan-16	8052	19536	676
Feb-16	8937	17838	719
Mar-16	8831	20929	711
Total	**98312**	**199938**	**8148**

Annexure- II

Ambient Air Quality Monitoring Results (April 2015 - March 2016)

Month	Unit-µg/Nm3							
	Near Security Gate				Near Bachelor Colony			
	PM_{10}	$PM_{2.5}$	SO_2	NO_2	PM_{10}	$PM_{2.5}$	SO_2	NO_2
Apr-15	54.0	42.0	14.2	16.3	42.0	31.0	15.1	17.4
May-15	46.0	28.0	12.2	17.2	38.0	20.0	13.5	16.7
Jun-15	41.0	23.0	7.4	18.5	33.0	16.0	6.5	17.4
Jul-15	44.0	25.0	13.1	18.1	39.0	13.0	13.9	17.8
Aug-15	44.0	25.0	13.1	18.1	39.0	13.0	13.9	17.8
Sep-15	52.0	23.0	13.4	16.5	43.0	14.0	11.6	15.4
Oct-15	57.0	27.0	12.3	17.6	48.0	16.0	10.5	16.5
Nov-15	52.0	22.0	11.2	16.5	43.0	13.0	9.4	15.4
Dec-15	46.0	24.0	10.5	15.6	38.0	16.0	8.7	14.8
Jan-16	40.0	21.0	9.6	14.5	33.0	14.0	7.8	13.9
Feb-16	44.0	19.0	8.7	13.6	37.0	16.0	6.9	12.8
Mar-16	49.0	22.0	7.8	12.7	42.0	19.0	5.8	11.9
Minimum	**40.0**	**19.0**	**7.4**	**12.7**	**33.0**	**13.0**	**5.8**	**11.9**
Maximum	**57.0**	**42.0**	**14.2**	**18.5**	**48.0**	**31.0**	**15.1**	**17.8**
Average	**47.4**	**25.1**	**11.1**	**16.3**	**39.6**	**16.8**	**10.3**	**15.7**

Month	Near New Canteen				Near Old Coke Oven			
	Unit-µg/Nm3							
	PM_{10}	$PM_{2.5}$	SO_2	NO_2	PM_{10}	$PM_{2.5}$	SO_2	NO_2
Apr-15	70.0	37.0	13.4	15.3	76.0	52.0	14.6	16.7
May-15	54.0	15.0	11.3	16.1	55.0	29.0	12.8	17.9
Jun-15	49.0	20.0	8.2	16.9	59.0	26.0	6.2	18.8
Jul-15	54.0	25.0	12.4	16.5	62.0	30.0	14.0	18.3
Aug-15	57.0	28.0	11.5	17.6	66.0	26.0	13.5	17.4
Sep-15	46.0	19.0	10.8	14.5	60.0	28.0	12.4	16.3
Oct-15	52.0	21.0	11.4	15.6	54.0	25.0	13.2	17.4
Nov-15	47.0	18.0	10.3	14.5	49.0	20.0	12.1	16.3
Dec-15	40.0	21.0	11.4	13.5	44.0	18.0	13.3	17.2
Jan-16	35.0	24.0	10.5	12.6	38.0	16.0	12.4	16.3
Feb-16	40.0	20.0	9.6	11.7	46.0	24.0	13.5	15.4
Mar-16	45.0	16.0	8.7	10.8	51.0	20.0	12.6	14.5
Minimum	**35.0**	**15.0**	**8.2**	**10.8**	**38.0**	**16.0**	**6.2**	**14.5**
Maximum	**70.0**	**37.0**	**13.4**	**17.6**	**76.0**	**52.0**	**14.6**	**18.8**
Average	**49.1**	**22.0**	**10.8**	**14.6**	**55.0**	**26.2**	**12.6**	**16.9**

Month	Near Staff Colony				Admin Office Coke Oven			
	Unit-µg/Nm3							
	PM_{10}	$PM_{2.5}$	SO2	NOx	PM_{10}	$PM_{2.5}$	SO_2	NO_2
Apr-15	51.0	40.0	11.5	15.8	59.0	34.0	10.2	18.2
May-15	42.0	25.0	9.7	14.2	50.0	22.0	8.8	15.3
Jun-15	37.0	18.0	10.3	14.8	43.0	14.0	9.2	16.1
Jul-15	33.0	21.0	10.6	14.2	49.0	17.0	9.6	15.7
Aug-15	39.0	13.0	9.7	13.8	54.0	19.0	8.6	14.2
Sep-15	35.0	17.0	8.9	12.7	58.0	25.0	7.9	13.1
Oct-15	30.0	20.0	9.6	13.8	50.0	23.0	8.5	14.2
Nov-15	26.0	15.0	8.5	12.7	45.0	21.0	7.4	13.1
Dec-15	30.0	13.0	9.6	13.9	34.0	19.0	7.5	12.5
Jan-16	26.0	11.0	8.7	12.8	30.0	15.0	7.2	11.6
Feb-16	31.0	15.0	7.6	11.9	35.0	11.0	6.3	10.7
Mar-16	36.0	18.0	6.7	10.3	40.0	13.0	5.4	9.8
Minimum	**26.0**	**11.0**	**6.7**	**10.3**	**30.0**	**11.0**	**5.4**	**9.8**
Maximum	**51.0**	**40.0**	**11.5**	**15.8**	**59.0**	**34.0**	**10.2**	**18.2**
Average	**34.7**	**18.8**	**9.3**	**13.4**	**45.6**	**19.4**	**8.1**	**13.7**

FUGITIVE EMISSION RESULTS (APRIL-2015 TO Mar-2016)																
Months	Name of Locations															
	Coke Yard (A-1)				Coke/ Coal Yard behind Old Battery (A-2)				Coke Oven Battery Area-1 & 2 (A-3)				Coke Oven Battery Area- 3 & 4 (A-4)			
	Unit- µg/m3															
	PM 10	SO_2	NO_2	Benzo (a) Pyrene (BaP)	PM 10	SO_2	NO_2	Benzo (a) Pyrene (BaP)	PM 10	SO_2	NO_2	Benzo (a) Pyrene (BaP)	PM 10	SO_2	NO_2	Benzo (a) Pyrene (BaP)
Apr-15	2273	18.9	23.7	ND	1984	19.3	25.2	ND	2456	22.4	26.1	ND	1847	20.8	25.9	ND
May-15	1357	19.6	24.5		1432	20.7	26.3		1124	23.5	27.1		1308	21.8	26.6	
Jun-15	1154	18.3	23.7		1303	19.1	25.3		1015	21.5	26.1		1167	20.4	25.4	
Jul-15	1145	18.9	23.2		1290	19.5	24.9		1030	21.1	25.7		1152	20.7	25.9	
Aug-15	1264	19.9	24.8		1421	20.7	25.4		1146	22.6	26.5		1520	21.8	27.3	
Sep-15	1389	18.7	23.7		1567	19.6	24.3		1234	21.5	25.4		1697	20.7	26.2	
Oct-15	1451	19.8	24.8		1629	20.5	25.4		1366	22.3	26.5		1827	21.8	27.3	
Nov-15	1311	18.7	23.7		1532	19.4	24.3		1127	21.2	25.4		1694	20.7	26.2	
Dec-15	1417	19.6	24.6		1624	20.3	25.2		1272	22.1	26.3		1775	21.6	27.1	
Jan-16	1587	18.7	23.7		1757	19.4	24.3		1329	20.9	25.4		1846	22.8	26.2	
Feb-16	1678	19.8	24.8		1875	20.5	25.4		1492	22.3	26.5		1964	23.9	27.3	
Mar-16	1711	18.9	23.9		1928	19.6	24.5		1542	21.4	25.6		1612	22.7	26.4	
Min	**1145**	**18**	**23**	ND	**1290**	**19**	**24**	ND	**1015**	**21**	**25**	ND	**1152**	**20**	**25**	ND
Max	**2273**	**20**	**25**		**1984**	**21**	**26**		**2456**	**24**	**27**		**1964**	**24**	**27**	
Avg.	**1478**	**19**	**24**		**1612**	**20**	**25**		**1344**	**22**	**26**		**1617**	**22**	**26**	

BDL= Below Detectab-e Limit

Month	Ambient Air Quality Monitoring with Respect to Noise (April 2015 - March 2016)					
	NOISE LEVELS [dB(A)]					
	Nr. Main Gate		Nr. Bachelor Colony		Admin Building	
	Day	Night	Day	Night	Day	Night
Apr-15	55.3	46.5	45.2	43.4	48.7	42.1
May-15	49.1	44.9	44.9	40.1	46.7	41.8
Jun-15	48.5	40.2	43.3	38.3	44.6	40.1
Jul-15	47.4	39.1	42.2	37.2	43.5	39.3
Aug-15	46.3	37.9	41.1	36.1	42.4	38.2
Sep-15	45.2	36.8	39.9	35.9	41.3	37.1
Oct-15	44.1	35.7	38.7	34.8	40.2	36.8
Nov-15	42.9	34.6	37.6	33.7	39.1	35.7
Dec-15	43.8	35.5	38.5	34.6	40.5	36.5
Jan-16	44.7	36.4	39.4	35.5	41.4	37.4
Feb-16	45.8	37.5	40.5	36.6	42.5	38.5
Mar-16	43.7	35.4	38.4	34.5	40.4	36.4
Minimum	**42.9**	**34.6**	**37.6**	**33.7**	**39.1**	**35.7**
Maximum	**55.3**	**46.5**	**45.2**	**43.4**	**48.7**	**42.1**
Average	**46.4**	**38.4**	**40.8**	**36.7**	**42.6**	**38.3**

Month	Near Store		Plant Boundary (Behind coke oven batteries)		Staff Colony	
	Day	Night	Day	Night	Day	Night
Apr-15	46.5	42.6	67.4	61.2	47.8	43.7
May-15	45.2	41.7	62.5	57.2	45.1	40.2
Jun-15	42.5	39.2	58.9	54.7	45.8	41.4
Jul-15	41.6	40.1	57.8	53.6	44.7	40.8
Aug-15	40.5	39.6	56.7	52.5	43.6	39.8
Sep-15	39.4	38.5	55.6	51.4	42.5	38.7
Oct-15	41.2	36.4	54.5	50.3	41.4	37.6
Nov-15	40.1	35.3	53.4	49.2	40.3	36.5
Dec-15	41.7	34.8	54.3	50.1	41.2	37.4
Jan-16	42.6	35.7	55.2	51.6	42.1	38.5
Feb-16	43.7	36.8	56.3	52.7	43.2	39.6
Mar-16	41.6	34.7	54.2	50.6	41.1	37.5
Minimum	**39.4**	**34.7**	**53.4**	**49.2**	**40.3**	**36.5**
Maximum	**46.5**	**42.6**	**67.4**	**61.2**	**47.8**	**43.7**
Average	**42.2**	**38.0**	**57.2**	**52.9**	**43.2**	**39.3**

Month	Work Place Noise Monitoring (April 2015 - March 2016)									
	NOISE LEVELS [dB(A)]									
	Near Cooling Tower	Near Turbine	Inside Control Room	Near Compressor	Nr. Raw Material Stock Yard	Nr. Coke Oven Batteries (Old)	Near Coke Stamping Area	Coke Oven Office	Near Quenching Tower	Nr. Coke Oven Batteries (New)
Apr-15	68.2	76.1	62.2	74.5	67.1	65.7	70.6	57.0	64.2	66.1
May-15	67.2	77.8	60.3	74.5	66.7	64.9	69.7	56.5	63.6	61.7
Jun-15	65.2	76.1	58.6	75.2	64.6	63.8	68.2	55.1	62.8	60.4
Jul-15	64.1	75.7	57.1	74.8	63.5	62.7	67.3	54.5	61.7	59.4
Aug-15	63.2	74.6	57.9	73.7	62.4	61.6	66.2	63.4	60.6	57.8
Sep-15	62.1	73.5	56.8	72.6	61.3	60.5	65.1	62.3	59.5	56.7
Oct-15	60.9	72.4	55.7	71.5	60.2	59.4	63.9	61.2	58.4	55.6
Nov-15	59.7	71.3	54.6	70.4	59.1	58.3	62.8	60.1	57.3	54.5
Dec-15	60.6	72.2	55.5	71.3	60.6	59.2	63.7	50.8	58.2	55.4
Jan-16	61.5	73.1	56.4	72.2	61.5	60.1	64.6	51.7	59.1	56.3
Feb-16	62.6	74.2	57.5	73.3	62.6	61.2	65.7	52.8	60.2	57.4
Mar-16	60.5	72.1	55.4	71.2	60.5	59.1	63.6	50.7	58.1	55.3
Minimum	**59.7**	**71.3**	**54.6**	**70.4**	**59.1**	**58.3**	**62.8**	**50.7**	**57.3**	**54.5**
Maximum	**68.2**	**77.8**	**62.2**	**75.2**	**67.1**	**65.7**	**70.6**	**63.4**	**64.2**	**66.1**
Average	**63.0**	**74.1**	**57.3**	**72.9**	**62.5**	**61.4**	**66.0**	**56.3**	**60.3**	**58.1**

STACK MONITORING RESULTS WITH RESPECT TO WASTE HEAT RECOVERY POWER PLANT
(APRIL-2015 to MARCH-2016)

Month	Stack attached to Boiler-I			Stack attached to Boiler-II			Stack attached to Boiler-III			Stack attached to Boiler-IV		
	PM	SO_2	NOx	PM	SO_2	NOx	PM	SO_2	NOx	PM	SO_2	NOx
	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm
Apr-15	43.0	14.7	21.6	47.0	15.7	20.7	23.0	14.4	23.4	27.0	12.9	22.8
May-15	16.0	13.2	22.8	11.0	14.5	21.6	14.0	12.8	24.3	12.0	11.7	23.7
Jun-15	21.0	15.9	28.6	...			18.0	14.6	26.4	15.0	13.7	25.1
Jul-15	28.0	16.2	28.2	21.0	17.6	27.4	16.0	14.3	25.1	19.0	13.2	24.8
Aug-15	41.0	17.8	29.7	30.0	18.5	28.5	20.0	15.6	26.4	24.0	14.9	25.8
Sep-15	37.0	18.9	30.8	22.0	19.6	29.6	26.0	16.7	27.5	19.0	16.1	26.9
Oct-15	43.0	19.7	29.7	37.0	20.5	28.5	31.0	17.8	26.4	24.0	16.9	25.8
Nov-15	48.0	20.8	28.6	42.0	21.6	27.4	36.0	18.9	25.3	29.0	17.5	24.7
Dec-15	41.0	21.7	29.5	35.0	22.5	28.3	31.0	19.8	26.2	25.0	18.4	25.6
Jan-16	46.0	20.8	28.6	28.0	21.6	27.4	37.0	20.9	25.3	31.0	17.5	24.7
Feb-16	53.0	21.7	27.7	36.0	22.5	28.6	30.0	21.8	26.4	24.0	18.6	25.8
Mar-16	57.0	22.6	28.6	43.0	23.4	29.5	21.0	20.9	25.5	28.0	17.5	26.7
Minimum	**16.0**	**13.2**	**21.6**	**11.0**	**14.5**	**20.7**	**14.0**	**12.8**	**23.4**	**12.0**	**11.7**	**22.8**
Maximum	**57.0**	**22.6**	**30.8**	**47.0**	**23.4**	**29.6**	**37.0**	**21.8**	**27.5**	**31.0**	**18.6**	**26.9**
Average	**39.5**	**18.7**	**27.9**	**32.0**	**19.8**	**27.0**	**25.3**	**17.4**	**25.7**	**23.1**	**15.7**	**25.2**

Month	Stack attached to Coke Oven Battery-1			Stack attached to Coke Oven Battery-2			Stack attached to Coke Oven Battery-3			Stack attached to Coke Oven Battery-4		
	PM	SO_2	NOx	PM	SO_2	NOx	PM	SO_2	NOx	PM	SO_2	NOx
	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm	mg/Nm^3	ppm	ppm
Apr-15	Stand by											
May-15												
Jun-15												
Jul-15												
Aug-15												
Sep-15												
Oct-15												
Nov-15												
Dec-15												
Jan-16												
Feb-16												
Mar-16												
Minimum	Not Applicable											
Maximum												
Average												

Annexure-III

STATUS OF GREENBELT & PLANTATIONS

The key objective to strengthen greenbelt in and around the plant premises to minimize the pollution load and to maintain ecological balance including sustainable development.

The following species of trees, shrubs & herbs have been planted in and around the plant premises at different location of ***Pragpar of Jindal Saw Limited.***

TREES:

Peltaphorum, Cassia, Arjun, Neem, Accassia, Cordia, Royal Palm, Chiku, Gulmohar, Ashok, Meetha Neem, Bottle Brush, Saru, Jamun, Badam,Arica Palm, Anar, Spathodia, Vismarkia Palm, Champa, Karanj, Cycus, Christmas Tree

SHRUBS:

Bougainvillea, Clerodendron, Song of India, Furcaria Forcata, *Caesalpinnia pulchirema*, Calliandra, Tecoma Capensis, Nerium , Thevatia , Euphorbia, Tabermontana (Chandni), Ixora, Iresine Red, Hibiscus, Ficus Panda, Ficus Blacki,

HERBS:

Spider Lily

Details of Plantations Carried Out During the period of April -2015 to March-2016

Month	No. of Saplings	Species Planted	Location
Apr-15	....	...	....
May-15	...	...	....
Jun-15	135	Neem, Peltoforum, Nerium Oleander	SGU slag yard, old admin road side.
Jul-15	172	Mango, Euphorbia, Bougainvillea	Power plant, admin road
Aug-15	740	Mango, Bougainvillea	Power plant, SGU , store yard ,worker colony, add road,
Sep-15	260	Mango	MCC room, SGU, store yard,
Oct-15	62	Peltoforum	New screen side, crusher plant
Nov-15	---	---	---
Dec-15	---	---	---
Jan-16	1650	Clerodendron inermi	SGU, security gate , MCS colony
Feb-16	1825	Thevetia peruvina nerium oleander	Worker colony ,coal yard, power plant
Mar -16	770	Thevetia peruvina , Nerium oleander .	Power plant nc 4, new coke cutter area, D M plant
Total	**5614**		

Numbers of total plantations as on dated 31st March, 2015 : 23165
Number of saplings planted during the current financial year : 5614
Total Numbers of Plant as on 31st March, 2016 : 28779

Annexure-IV

CSR EXPENSES FOR THE PERIOD OF APRIL, 2015 TO MARCH, 2016 AS ACTIVITIES CARRIED OUT BY JINDAL SAW LIMITED, IPU-SAMAGHOGHA-GUJARAT

Nature of Activities	Whom to paid	Amount (Rs.)
Medical Expenses	Medical camps, Mobile dispensaries, General Medical Treatment in OPD & Indoor, Blood Donation Camp & Medicines etc.	3191331.00
Expenses incurred under Education program	Salary paid to teachers	222699.00
	Annual Sports activities at Samaghogha School	15000.00
Environmental Expenses	Incurred by the company	15240804.00
Social Welfare Expenses	Animal Husbandry - Grass distribution at Samaghogha & Bhujpur	1880103.00
	Salary paid to security at Bhujpur village	104000.00
	Donation to Samajwadi at Bhujpur	200000.00
	Infrastructure Development – Construiction of Overhead tank at Samaghogha Village	2,45,010.00
Other Expenses	Donation for Navaratri Mahotsav at Mundra	5000.00
	Misc. Expenses related to CSR	556010.00
Total		**21659957.00**