ENVIRONMENTAL STATEMENT

OF

ADITYA BIRLA INSULATORS,
A UNIT OF GRASIM INDUSTRIES LIMITED.
5, PANCHU GOPAL BHADURI SARANI
P.O. PRABHAS NAGAR, RISHRA
DIST.: HOOGHLY - 712249
WEST BENGAL

FOR THE YEAR 2016-2017

FORM -- V

(See Rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2017

PART - A

1	Name and address of the owner/occupier of the operation or process	:	industry, Aditya Birla Insulators, A Unit of Grasim Industries Limited. 5,Panchu Gopal Sarani, P.O.- Prabhasnagar,(712249); Rishra, Hooghly
2	Industry Category	:	Orange category
	Primary code -- (STC Code)		--
	Secondary code -- (STC Code)		--
3	Production Capacity - Units -	:	Porcelain Insulators 2830 MT / Month
4	Year of Establishment	:	1966
5	Date of Last environmental statement submitted.	:	01.09.2016

PART - B

WATER CONSUMPTION & RAW MATERIAL CONSUMPTION

1	**Water consumption**	**M^3 / day**
	Process	210.00
	Industrial cooling	50.00
	Domestic	72.00

Name of Products	Process Water Consumption per unit of product output	
	During the previous financial year 2015-2016	During the current financial year 2016-2017
Electro Porcelain Insulators	4.41 M^3 / MT	3.56 M^3 / MT

Basis Net Production during 2016-2017 **21,522.67 MT**

Net Production daily average during 2016-17 **58.966 MT**

2 **Raw material Consumption**

	Name of raw materials	Name of Products	Consumption of Raw Materials per unit of output	
			During the Previous Financial Yr 15-16 (Kg/MT)	During the Current Financial Yr 16-17 (Kg/MT)
1	Feldspar	Porcelain Insulators	228.9	223.0
2	Quartz	-do-	435.06	404.8
3	Ball clay A-10	-do-	226.4	195.1
4	Hi-MOR ball clay	-do-	142.4	125.3
5	Hy-MOR blue ball clay	-do-	56.16	82.4
6	Clay S-1, S-2 & Others	-do-	186.7	175.7
7	China Clay	-do-	24.35	28.5
8	Alumina	-do-	56.02	84.2
9	Dolomite	-do-	2.29	2.4
10	Magnesium Chloride	-do-	1.35	1.0
11	Iron Oxide	-do-	0.9	1.0
12	C.M.C.	-do-	0.17	0.0
13	Sodium Silicate	-do-	0.012	0.0

14	Manganese di-Oxide	-do-	1.35	1.4
15	Cement	-do-	56	59.0

PART - C

POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT

(* parameter as specified in the consent issued)

Pollutants	Quantity of pollutant discharge (mass/day)		Concentrations of pollutants in discharges (mass/volume)		Prescribed Standard	Percentage of variation from standards with reasons	
A. WATER				mg/L			
pH	---		6.71		5.5 - 9.0		
TSS	0.432	Kg/day	2.7	mg/L	100	(+)	97.30
BOD	0.480	Kg/day	3	mg/L	30	(+)	90.00
COD	2.480	Kg/day	15.50	mg/L	250	(+)	93.80
Oil & Grease	0.224	Kg/day	1.4	mg/L	10	(+)	86.00
Iron	0.008	Kg/day	0.05	mg/L	3	(+)	98.33
B. AIR SO2							
Shuttle Kiln 1 (6 Chimney)	__	Kg/day	__	mg/Nm^3	$H=14Q^{o'3}$		
Shuttle Kiln 2 (6 Chimney)	9.968	Kg/day	14.3	mg/Nm^3	$H=14Q^{o'3}$		
Tunnel Kiln 3 (1 Chimney)	5.061	Kg/day	24.9	mg/Nm^3	$H=14Q^{o'3}$		
Tunnel Kiln 4 (1 Chimney)	4.252	Kg/day	20.5	mg/Nm^3	$H=14Q^{o'3}$		
Tunnel Kiln 5 (1 Chimney)	3.847	Kg/day	18.6	mg/Nm^3	$H=14Q^{o'3}$		
Thermopac 1 (1 Chimney)	0.092	Kg/day	18.1	mg/Nm^3	$H=14Q^{o'3}$		

Thermopac 2 (1 Chimney)	0.097	Kg/day	8.9	mg/Nm³	H=14Q°'³		
Thermopac 3 (1 Chimney)	0.241	Kg/day	19.1	mg/Nm³	H=14Q°'³		
750 KVA DG 1 (2 Chimney)	1.960	Kg/day	15.5	mg/Nm³	H=14Q°'³		
750 KVA DG 2 (2 Chimney)	2.293	Kg/day	13.6	mg/Nm³	H=14Q°'³		
1000 KVA DG 3 (1 Chimney)	__	Kg/day	__	mg/Nm³	H=14Q°'³		
Total	**27.812**	**Kg/day**					

AIR **PM** mg/Nm³

Shuttle Kiln 1 (6 Chimney)	__	Kg/day	__	mg/Nm³	150	(+)	#VALUE!
Shuttle Kiln 2 (6 Chimney)	16.210	Kg/day	33.0	mg/Nm³	150	(+)	78.00
Tunnel Kiln 3 (1 Chimney)	4.188	Kg/day	40.0	mg/Nm³	150	(+)	73.33
Tunnel Kiln 4 (1 Chimney)	4.614	Kg/day	46.0	mg/Nm³	150	(+)	69.33
Tunnel Kiln 5 (1 Chimney)	5.800	Kg/day	22.0	mg/Nm³	150	(+)	85.33
Thermopac 1 (1 Chimney)	0.330	Kg/day	51.0	mg/Nm³	150	(+)	66.00
Thermopac 2 (1 Chimney)	0.359	Kg/day	33.0	mg/Nm³	150	(+)	78.00
Thermopac 3 (1 Chimney)	0.606	Kg/day	48.0	mg/Nm³	150	(+)	68.00
750 KVA DG 1 (2 Chimney)	6.198	Kg/day	49.0	mg/Nm³	150	(+)	67.33
750 KVA DG 2 (2 Chimney)	6.407	Kg/day	38.0	mg/Nm³	150	(+)	74.67
1000 KVA DG 3 (1 Chimney)	__	Kg/day	__	mg/Nm³	150	(+)	#VALUE!
Total	**44.712**	**Kg/day**					

Percentage of Variation = $\frac{\text{Standard - Actual}}{\text{Standard}} \times 100$

(+) Means lower than standerd

(--) Means higher than standerd

Basis

A	WATER	Effluent Water discharged = 160 KL / Day
B	AIR	
	1	Shuttle Kiln 1 running for 9.99 hrs./day (approx.)
	2	Shuttle Kiln 2 running for 7.69 hrs./day (approx.)
	3	Tunnel Kiln 3 running for 21.50 hrs./day (approx.)
	4	Tunnel Kiln 4 running for 20.25 hrs./day (approx.)
	5	Tunnel Kiln 5 running for 22.81 hrs./day (approx.)
	5	Thermopac 1 running for 4.75 hrs./day (approx.)
	6	Thermopac 2 running for 7.49 hrs./day (approx.)
	7	Thermopac 3 running for 2.29 hrs./day (approx.)
	8	750 KVA DG 1 running for 2.1 hrs./day (approx.)
	9	750 KVA DG 2 running for 2.0 hrs./day (approx.)
	10	1000 KVA DG 3 running for 0.0 hrs./day

(approx.)

POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT

(*parameter as specified in the consent issued)

Pollutants	Quantity of pollutant discharge (mass/day)		Quantity of pollutant discharge to environment per unit of output (Kg/MT)	
A. WATER				
TSS	0.432	Kg/day	0.0073	Kg/MT
BOD	0.480	Kg/day	0.0081	Kg/MT
COD	2.480	Kg/day	0.0421	Kg/MT
Oil & Grease	0.224	Kg/day	0.0038	Kg/MT
B. AIR				
SO2	27.812	Kg/day	0.472	Kg/MT
PM	44.712	Kg/day	0.758	Kg/MT

Basis	No. of working days during 01April'16 - 31Mar'17	365	Days
	Production of Electro Porcelain Insulator during April, 2016 to March, 2017	21,522.67	MT

Production of Electro Porcelain Insulator during April, 2016 to March, 2017 58.966 MT/day

PART - D

HAZARDOUS WASTES

[As Specified under Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008]

Hazardous Waste	Total Quantity	
	During the current financial year 2015-16	During the current financial year 2016-17
1. From Process	Used Oil →NIL	Used Oil →2.6 KL
2. From Pollution Control Facilities	NIL	NIL

PART - E

SOLID WASTES

Solid Wastes	Total Quantity	
	During the current financial year 2015-16	During the current financial year 2016-17
a. From process	6645 MT of rejected fired insulators	5,072 MT of rejected fired

			insulators
	b. From Pollution Control Facility	1158.19 MT of ETP sludge & Drain Clay	929 MT of ETP sludge & Drain Clay
c. (1)	Quantity recycled or re-utilised within the unit.	Nil	Nil
(2)	Sold	1158.19 MT of ETP sludge	929 MT of ETP sludge
(3)	Disposed	Nil	Nil

PART - F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.	**Hazardous Waste:**	Composition & Quantum of Hazardous Waste: Used Oil → 2600 Lt.
		Used oil is being kept in a storage shed for selling to WBPCB authorised agency.
	Solid Waste :	Composition & Quantum of Solid Wastes: i) Rejected Fired Insulators → 5,072 MT ii) ETP Sludge (Ceramic clay) → 929 MT iii) Drain Clay (Ceramic clay) → Nil

		Method of Disposal: i) Rejected fired insulators are being sold to the organisation, those are mostly using as a raw material of refractory. ii) ETP sludge is sold to out agencies and remaining drain clay is being disposed to common waste dumping area through Rishra Municipality.

PART - G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.	i) The entire industrial effluent water is being routed through the existing ETP. In the existing ETP the method of treatment is primarily chemical dosing for sedimentation of suspended solid in the settling chambers. The settled clay from the bottom of the chambers are subsequently passed through a filter press or a Centrifugal Decanter and the waste clay is sold to out side agency (primarily used as a raw material for ceramic SSI units).
	The plant is having an Environmental Management System (EMS) and is certified for ISO 14001, ISO 9001, SA 8000 & OHSAS 18001. Plant has been set up the following programme as part of EMS.
	Based on the priority of impact analysis some Environmental Management Programme (EMP) are being developed. New Plantetion done in plant premises.Treated effluent used in plant utilities.

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution.	i) The entire cooling water used for the different heat exchangers were being drained out. Presently we have installed a Cooling Tower for recycling this water through a closed loop such that this entire water can be reused.
	ii) The entire ETP discharge is presently being drained out. We have installed a Multi Grade Filter and reuse a part of it in our Cement Curing, Toilet & Lavatory, Gardening & Floor cleaning

PART - I

MISCELLANEOUS:

Any other particulars inrespect of environmental protection and abatement of pollution.	World Environment day -A week celebrated in plant