



December 01, 2020

No. 1588/Env-SFD/MOEF/RO/BPL/EC-40MW

Director
Ministry of Environment, Forest and Climate Change,
Regional Office (WZ),
E-5, Kendriya Paryavaran Bhawan,
E-5 Arera Colony, Link Road-3,
Ravishankar Nagar,
Bhopal – 462016

Sub: Submission Environment Clearance Compliance Report for the period from April 2020 to September 2020 for Grasim Industries Limited, 40 MW Thermal Power Plant, P.O. Birlagram, Nagda, District Ujjain – 456 331, M.P.

Ref: Environment Clearance Issued vide File No. J-13011/18/94-IA II

Dear Sir,

This has reference to above cited environment clearance & condition prescribed therein and provisions of Section 10 of EIA Notification, dated 2006.

We are enclosing with this letter Six Monthly point wise Environment Clearance Compliance Report along with data sheet and summary of monitoring results for the period from April - 2020 to September - 2020 of Grasim Industries Limited, 40 MW Thermal Power Plant.

We are also sending the compliance report to MoEF&CC Regional Office, Bhopal through e-mail address on rowz.bpl-mef@nic.in.

Hope you will find the information provided in order, we shall be happy to furnish further details / clarifications, if required.

Thanking you,
Yours faithfully,

K Suresh
Sr. President & Unit Head

CC:

1. Ministry of Environment Forest & Climate Change, New Delhi
2. Central Pollution Control Board, Zonal Office, Bhopal
3. Madhya Pradesh Pollution Control Board - Bhopal

Enclosed: As Above

Grasim Industries Limited

Staple Fibre Division

Birlagram - 456 331, Nagda (M.P.) INDIA Tele: +91 7366 246760-64 Fax: +91 7366 246024, 244114

CIN : L17124MP1947PLC000410 Website : www.adityabirla.com E-mail : grasim-sfd.nagda@adityabirla.com

Regd. Office : P.O. Birlagram, Nagda - 456 331 (M.P.)

SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENT CLEARNACE FOR

GRASIM INDUSTRIES LIMITED, (40MW THERMAL POWER PLANT)
BIRLAGRAM, NAGDA – 456 331
DIST. UJJAIN (M.P.)



Submitted to:

Ministry of Environment Forest & Climate Change, (WR Office) Bhopal
Ministry of Environment Forest & Climate Change, New Delhi
Central Pollution Control Board, Zonal Office, Bhopal
Madhya Pradesh Pollution Control Board - Bhopal

Submitted by:

Grasim Industries Limited, (40MW Thermal Power Plant)

Birlagram, Nagda – 456 331

District: Ujjain (M.P.)

Period: APRIL 2020 – SEPTEMBER 2020

Submitted on: 1 DECEMBER 2020

Compliance Status Report for "Environment Clearance" accorded by MoEF & CC for Grasim Industries Limited, 40 MW Thermal Power Plant, Birlagram, Nagda – 456 331 (M.P.)

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Compliance Status Report for "Environment Clearance" accorded by MoEF & CC for Grasim Industries Limited, 40 MW Thermal Power Plant, Birlagram, Nagda – 456 331 (M.P.)

List of Annexures

- Exhibit -1 Summary of Emission Monitoring results of reporting period
- Exhibit -2 Summary of Treated Effluent Monitoring results of reporting period
- Exhibit -3 Glimpse of plantation in the complex
- Exhibit -4 Image of the display board at Factory Gate showing environmental parameters for general public
- Exhibit -5 Ambient air quality monitoring results of reporting period

Introduction

1. Grasim Industries Limited (GIL), incorporated on 25th Aug., 1947; is a flagship company of the Aditya Birla Group and India's pioneer in manufacturing of Viscose Staple Fibre (VSF) a man-made, biodegradable fibre with characteristics akin to cotton.
2. M/s. Grasim Industries Ltd. has four VSF Plants in India which are located at Nagda (Madhya Pradesh), Harihar (Karnataka), Kharach & Vilayat (Gujarat).
3. 40 MW Thermal Power Plant is coal based thermal power plant located at Birlagram, Nagda.
4. All the operation related permits, including Environmental Clearance from MOEF & CC and Consents to Establish (CTE) & Consent to Operate (CTO) has obtained from M.P. Pollution Control Board, Bhopal are in place.
5. Environmental quality monitoring in & around the Plant site is being carried out by M.P. Pollution Control Board & in-house Laboratory on a regular basis.
6. 03 No. of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) along with other Environmental Parameter from Grasim Complex displayed on LED Board at main gate of the Plant Premises.
7. Online Continuous Emission Monitoring System (CEMS) is installed at stack and connected with M.P. Pollution Control Board and CPCB, New Delhi.
8. Online Continuous Effluent Quality Monitoring System (CEQMS) is installed and connected with M.P. Pollution Control Board and CPCB, New Delhi.
9. A vast green belt is developed to curb the emission and also to improve environmental conditions in & around Grasim complex.
10. Point wise compliance status of Environmental Clearance for Grasim Industries Limited, 40MW Thermal Power Plant Fibre Division, Birlagram, Nagda is furnished herewith;

Compliance Status Report for "Environment Clearance" accorded by MoEF & CC for Grasim Industries Limited, 40 MW Thermal Power Plant, Birlagram, Nagda – 456 331 (M.P.)

Environment Clearance
(Grasim Industries Limited, 40 MW Thermal Power Plant)
MOEF Ref. O.M. No: J-13011/18/94-IA. II dated 01.03.1995
Period - APRIL 2020 – SEPTEMBER 2020

Sr.	Conditions and Environmental Safeguards	Compliance Status
	M/s Grasim Industries Limited may refer to proposal dated 26.08.1994 on the subject mentioned above. The Proposal has been examined and accorded clearance from environmental angle subject to effective implementation of the following conditions and environmental safeguards:	Acknowledged
1	All the conditions stipulated by the State Pollution Control Board shall be implemented effectively.	Industry is complying the conditions laid down by state pollution Control Board and has valid consents & authorization issued by M.P. Pollution control board; <ul style="list-style-type: none"> • Consent under The Water (Prevention and Control of Pollution) Act, 1974 issued vide Letter No. AWH-52040 dated 01.09.2020 valid up to 31.07.2021. • Consent under The Air (Prevention and Control of Pollution) Act 1981 issued vide letter no. AWH-52040 dated 01.09.2020 valid up to 31.07.2021. • Authorization under the hazardous waste rule issued vide No.AWH-52040 dated 01.09.2020 valid up to 28.05.2025.
2	A stack height of not less than 76 meters shall be provided along with ports for stack monitoring	A stack of 76-meter height constructed and stack monitoring port has been provided for sampling. Online Continuous Monitoring System (CEMS) is also provided at stack and connected to M.P. Pollution Control Board and Central Pollution Control Board, New Delhi.
3	The Electrostatic precipitators having an efficiency of not less than 99.8% shall be installed.	Two High Efficiency Electrostatic Precipitators having three field each has been provided to boilers, which are

Sr.	Conditions and Environmental Safeguards	Compliance Status
		performing efficiently to meet particulate emission norms. Emission monitoring is done and reports are being submitted to Regional Officer, MoEF&CC, Bhopal regularly.
4	The particulate emission shall not exceed the prescribed limit of 350 mg/Nm ³ at any time	Two High Efficiency Electrostatic Precipitators has been provided to boilers, which are performing efficiently to meet particulate emission norms. Emission monitoring is done and reports are submitted to Regional Officer, MoEF&CC, Bhopal regularly. Plant was under shutdown during reporting period as summary is enclosed as Exhibit -1
5	Dust suppression and dust extraction devices shall be installed in the coal handling area to ensure the level of dust within prescribed limits	<p>Complied, following measures have been taken to control dust pollution from coal storage and handling area;</p> <ul style="list-style-type: none"> • Water Sprinkler System is provided at coal unloading points i.e. at Truck Tripler and Wagon Tripler • Water Sprinkler System has been provided at coal storage area • Coal is transferred through covered conveyer system. • Dust Suppression system is provided at al transfer point of coal conveyer. • Dust extraction system with bag filter is provided in coal crusher house • Thick plantation has been done around the coal storage area <p>Dust level is monitored regular basis in coal handling area and monitoring results are well within the norms.</p>
6	Closed circuit cooling with induced draft cooling tower shall be provided	Closed circuit cooling tower with induced draft has been provided.
7	The liquid effluents will be suitably treated to conform to the prescribed standards before being discharged into nallah. Efforts should be made to utilize the treated effluent to the maximum extent possible so as to conserve water.	System has been developed and a Lamela Clarifier has been installed for maximum utilization of waste water for sprinkler system for coal storage & handling area and fly ash quenching. Balance waste water is treated in common effluent treatment plant equipped with secondary treatment facility before discharge into Nalla.

Sr.	Conditions and Environmental Safeguards	Compliance Status
		<p>Industry has also installed Continuous Effluent Quality Monitoring System (CEQMS) for treated effluent and same is connected to Environmental Surveillance Centre of M.P. Pollution Control Board, Bhopal and Central Pollution Control Board, New Delhi.</p> <p>Treated effluent quality parameters are monitored and reports is being sent to Regional Officer, MoEF&CC, Bhopal regularly. Summary of treated effluent monitoring report for reporting period is enclosed as Exhibit -2</p>
8	<p>An effective and workable plan of ash utilization starting with at least 20% utilization during the first year which may gradually increase by 10% every year so as to achieve 100% utilization by the end of the ninth year may be prepared and submitted. While disposing of the ash through sale to outside parties , it needs to be ensured that the ash is used in an environmentally compatible manner and does not pose any environmental hazard</p>	<p>Industry has installed fly ash collection system and achieved 100% utilization of fly ash in Cement & Brick Manufacturing Industry. Industry has been regularly sumitting the Annual Implementation Report for compliance of the provisions of Fly Ash Notification. Last Annual Implementation Report is submitted vide our letter No. 1510/Env-SFD/MoEF/Fly Ash Comp Rep on 25.04.2020.</p>
9	<p>Workers in the high noise area will be provided with ear protection devices.</p>	<p>Appropriate personal protective equipment's (PPEs) has been provided to employees based noise level at workplace and required noise insertion loss. Noise monitoring has been done regularly to identification of high noise area & adopt appropriate control measure.</p>
10	<p>Green belt of adequate width with suitably selected species should be raised all around the power plant as also around the ash dump area and coal handling area.</p>	<p>Green belt has been developed in industrial complex. Selected species for has been raised in power plant area and coal storage area. Images of green belt provided in power plant area is enclosed as Exhibit -3.</p>
11	<p>Regular monitoring of the air quality around the power plant may be carried out and records maintained. Periodic report of air quality may be submitted to this Ministry. Data on S02 emission should be rechecked and furnished to the ministry within three months.</p>	<p>Regular monitoring of the ambient air quality around the industrial campus is being carried out on regular basis and record are being maintained. Industry has installed 03 (Three) Nos of Continuous Ambient Air Quality Monitoring system (CAAQMS) in consultation with M.P. Pollution Control Board for continuous monitoring of</p>

Sr.	Conditions and Environmental Safeguards	Compliance Status
		<p>ambient air quality and monitoring results are being displayed on 6 feet X 12 feet LED display board at factory gate for public. Image of the LED display board is enclosed as Exhibit -4. Four ambient air quality monitoring station in all four directions has been setup in consultation with CPCB & MPPCB. Regular monitoring of ambient air quality is being carried out and report is being submitted to MPPCB and CPCB and Regional Office of MoEF&CC. Monitoring results are well within the prescribed standards. Report of the reporting period is enclosed as Exhibit -5.</p>
12	<p>Status report on the compliance of pollution standards in respect of existing units may be furnished to this ministry within three months.</p>	<p>Emission and Discharge monitoring from existing units is being carried out and results are in compliance with regulation. Monitoring results is regularly reported to Regional Office, MoEF&CC, Bhopal on quarterly basis. Last report submitted for the period from July-2020 to Sepetember-2020 vide our letter No. 1573/Env-SFD/MoEF/BPL/Report dated 09.10.2020.</p>
13	<p>Separate funds should be allocated for implementation of Environment protection measures along with item wise breakup. These cost should be included as part of the project cost. The funds earmarked for environmental protection measures should not be diverted for other purposes.</p>	<p>separate fund was allocated for environmental protection in the project cost and item wise breakup is as follows;</p> <ul style="list-style-type: none"> • Electrostatic Precipitator 2 Nos - Rs. 238 Lacs • Fly Ash handling system – Rs 45.38 Lacs. • Stack 76-Meter Height – Rs.63.13 Lacs • Dust Suppression System – Rs. 9.67 Lacs • Water Recycling System – Rs. 4.27 Lacs <p>Industry has also installed Continuous Emission Monitoring System (CEMS) at Stacks - Rs. 26.43 Lacs.</p>
14	<p>The stipulated conditions will be monitored by our Regional Office, Located in Bhopal.</p>	<p>Acknowledged</p>
15	<p>A half yearly report on the status implementation of the stipulated conditions</p>	<p>A half yearly compliance monitoring report is being submitted to MoEF&CC</p>

Sr.	Conditions and Environmental Safeguards	Compliance Status
	and environmental safeguards shall be submitted to this Ministry.	regularly. Industry has submitted last six monthly compliance report vide letter No. 1518/Env-SFD/MoEF/RO/BPL/EC-40MW dated 23.05.2020 for the period from October 2019 to March 2020.
16	The conditions stipulated may be varied or new ones added of the clearance revoked if necessary on the interest of environment protection	Acknowledged
17	The stipulations will be implemented among others under the Water (Prevention and Control of Pollution) Act, 1974 the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 and the amendments made therein from time to time.	Acknowledged, compliance of all applicable regulatory requirement is being ensured.

Exhibit - 1

SUMMARY EMISSION MONITORING REPORT

Month	Cross Sectional Area of Stack	Stack Temp.	Velocity	Flow	Emission Conc.	Emission	SO2	NOX
	m ²	°C	m/s	Nm ³ /s	mg/Nm ³	kg/day	mg/Nm3	mg/Nm3
Apr-20	15.3	Plant under shutdown due to COVID-19 Precaution.						
May-20	15.3							
Jun-20	15.3							
Jul-20	15.3							
Aug-20	15.3							
Sep-20	15.3							

Exhibit - 2

SUMMARY TREATED EFFLUENT MONITORING RESULTS

Month	pH			TSS mg/l			BOD mg/l			Zn mg/l		
	Avg.	Variation		Avg.	Variation		Avg.	Variation		Avg.	Variation	
		Min	Max		Min	Max		Min	Max		Min	Max
Apr-20	-	-	-	-	-	-	-	-	-	-	-	-
May-20	7.4	7.1	7.5	41	28	52	11	6	19	0.19	0.13	0.39
Jun-20	7.1	7.0	7.2	39	32	35	20	16	25	0.26	0.13	0.39
Jul-20	7.1	7.0	7.3	44	38	50	21	18	25	0.25	0.13	0.39
Aug-20	7.1	7.0	7.2	40	34	48	19	15	24	0.20	0.13	0.39
Sep-20	7.2	7.0	7.3	55	44	62	19	16	2316	0.24	0.13	0.39

- Plane was under shutdown in the month of April 2020 due to COVID-19 precautions.

Exhibit - 3

GLIMPS OF GREEN BELT DEVELOPED



POWER HOUSE GATE



PLANT OVERVIEW



THERMAL POWER PLANT AREA



GREEN BELT

LED Display Board for CAAQMS (at Factory Gate for General Public)



FORMAT - II A

Ambient air quality data at Nagda for the month of : April 2020

All results expressed as Microgram/M3

Direction	Hrs Date	01 - 10				10 - 14				14 - 18				18 - 22				22 - 01				02 - 06				4Hrs			Max			24Hrs Avg				8 Hrs Avg SPM									
		SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	6-18	18-22	22-06									
EAST																																													
WEST																																													
NORTH																																													
SOUTH																																													

Plant
was
stopped
due to COVID-19 precaution

FORMAT - II B

Ambient air quality data at Nagda for the month of : April 2020

Sampling location	Month & Year	SO2 microgram/M3				FLO2 microgram/M3				CS2 microgram/M3				H2S microgram/M3				SPM microgram/M3				
		n	A.M.	S.D.	Peak	n	A.M.	S.D.	Peak	n	A.M.	S.D.	Peak	n	A.M.	S.D.	Peak	n	A.M.	S.D.	Peak	G.M.
EAST Fabrication Shop	Apr 2020																					
WEST Vishnu Bhawan	Apr 2020																					
NORTH Labour Club	Apr 2020																					
SOUTH Dairy	Apr 2020																					

A.M. = Arithmetic mean, S.D. = Standard Deviation, G.M. = Geometric mean, n = number of observation

ND = Not Detected

* Norms for SO2, NO2 & SPM as per NAAQM Standard and Permissible limit for CS2 = 100 µg/m3 and H2S = 100 µg/m3

Remark: All three Continuous Ambient Air Quality Monitoring station were operational and monitoring data during the month has been transmitted to MPPCB server.

FORMAT - II A**Ambient air quality data at Nagda for the month of : May-2020
All results expressed as Microgram/M3**

Direction	Hrs Date	6 - 10				10 - 14				14 - 18				18 - 22				22 - 02				02 - 06				4Hrs Max				24Hrs Avg				8 Hrs Avg: PM10			8 Hrs Avg: PM2.5		
		SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	5-14	14-22	22-06	5-14	14-22	22-06
EAST	07.05.2020	2	1	ND	ND	2	2	ND	ND	1	2	ND	ND	3	3	ND	ND	2	1	ND	ND	2	2	ND	ND	3	3	BDL	BDL	3.0	1.8	BDL	BDL	40	42	38	21	22	20
	22.05.2020	3	4	4	5	4	3	4	5	5	3	5	2	5	4	5	4	5	5	5	5	3	3	4	4	4	5	5	5	4.3	3.8	5.2	3.5	44	49	46	24	28	28
WEST	07.05.2020	2	2	ND	ND	2	3	ND	ND	1	2	ND	ND	2	2	ND	ND	1	1	ND	ND	3	2	ND	ND	3	3	BDL	BDL	1.8	2.0	BDL	BDL	44	40	36	22	20	19
	22.05.2020	2	4	4	2	3	5	ND	3	4	4	ND	3	3	4	ND	3	5	8	8	ND	5	10	ND	4	5	10	8	4	3.0	6.0	2.3	1.5	46	44	40	20	22	24
NORTH	09.05.2020	3	ND	ND	ND	3	1	ND	ND	2	ND	ND	ND	2	1	ND	ND	1	2	ND	ND	2	2	ND	ND	3	2	BDL	BDL	2.6	1.8	BDL	BDL	36	38	38	21	20	20
	25.05.2020	3	2	4	2	3	5	8	ND	4	5	ND	4	2	1	8	4	5	5	5	3	4	5	ND	ND	6	6	5	4	5.7	4.0	4.7	2.2	40	36	34	23	22	20
SOUTH	09.05.2020	2	1	ND	ND	1	2	ND	ND	2	2	ND	ND	2	2	ND	ND	2	1	ND	ND	1	2	ND	ND	2	2	BDL	BDL	1.7	1.7	BDL	BDL	45	48	44	22	24	20
	25.05.2020	4	5	ND	2	3	ND	4	2	4	5	4	3	2	2	ND	2	4	5	4	2	3	2	ND	ND	4	5	4	3	3.3	3.6	2.0	1.6	42	46	38	24	26	26

BDL : Below detectable limit

Tr : Trace

ND: Not Detectable

FORMAT - II B**Ambient air quality data at Nagda for the month of : May-2020**

Sampling location	Month & Year	SO2 microgram/M3				NO2 microgram/M3				CO2 microgram/M3				H2S microgram/M3				PM10 microgram/M3					PM2.5 microgram/M3				
		n	A.M	S.D	Peak	n	A.M	S.D	Peak	n	A.M	S.D	Peak	n	A.M	S.D	Peak	n	A.M	S.D	Peak	G.M	n	A.M	S.D	Peak	G.M
EAST Fabrication Shop	May-2020	12	3.2	1.5	5	12	3.8	1.2	5	12	2.6	1.5	8	12	3.5	1.0	5	5	43	3.7	49	43	5	24	2.8	28	23
WEST Yashraj Showan	May-2020	12	2.4	1.2	5	12	4.0	2.6	10	12	1.7	1.7	8	12	3.0	0.8	4	5	42	3.3	46	42	5	21	1.7	24	21
NORTH Labour Club	May-2020	12	2.8	1.3	5	12	3.0	1.8	6	12	3.8	1	8	12	3.3	0.8	4	5	37	1.8	40	37	5	22	1.8	23	21
SOUTH Dary	May-2020	12	2.5	1.0	4	12	2.8	1.5	5	12	1.0	0.0	4	12	2.2	0.4	3	5	44	3.3	48	44	5	24	2.6	28	24

A.M = Arithmetic mean, S.D = Standard Deviation, G.M = Geometric mean, n = number of observation

Note: Norms for SO2, NO2, PM10 & PM2.5 as per National Ambient Air Quality Standards and Permissible limit for CO2 = 100 µg/m3 and H2S = 150 µg/m3

FORMAT - II A

Ambient air quality data at Nagda for the month of : June 2020

All results expressed as $\mu\text{g}/\text{m}^3$

Direction	Hrs Date	6-10				10-14				14-18				18-22				22-02				02-06				4hrs Max				24Hrs Avg				8 Hrs Avg PM10			8 Hrs Avg PM2.5				
		SO ₂	NO _x	CS ₂	H ₂ S	SO ₂	NO _x	CS ₂	H ₂ S	SO ₂	NO _x	CS ₂	H ₂ S	SO ₂	NO _x	CS ₂	H ₂ S	SO ₂	NO _x	CS ₂	H ₂ S	SO ₂	NO _x	CS ₂	H ₂ S	SO ₂	NO _x	CS ₂	H ₂ S	SO ₂	NO _x	CS ₂	H ₂ S	SO ₂	NO _x	CS ₂	H ₂ S	8-14	14-22	22-06	8-14
EAST	08.06.2020	3	4	4	3	4	3	5	2	3	2	3	3	3	3	5	5	3	4	4	4	4	3	7	3	5	4	7	5	3.7	3.2	4.8	3.3	44	46	42	24	22	23		
	23.06.2020	5	4	3	3	4	5	4	4	8	5	6	2	3	3	5	3	5	6	4	4	4	3	5	5	6	6	6	5	4.5	4.3	4.5	3.5	43	45	44	23	26	25		
	25.06.2020	8	7	6	4	8	6	6	8	10	6	4	6	3	2	6	7	8	6	7	6	9	5	5	5	10	9	7	7	8.0	7.0	6.5	5.5	46	48	43	28	24	27		
WEST	08.06.2020	3	2	3	2	4	3	2	3	2	3	2	1	3	4	2	ND	3	3	ND	2	4	2	3	3	4	4	3	3	3.2	2.8	2.0	1.8	40	39	36	20	24	22		
	23.06.2020	2	3	4	3	3	2	2	2	2	2	3	3	4	1	1	4	3	2	ND	2	5	3	2	ND	5	3	4	4	3.2	2.3	2.0	2.0	41	38	40	21	25	20		
	25.06.2020	4	3	4	3	3	5	3	3	5	3	8	5	3	3	5	4	5	4	4	3	4	5	3	2	5	5	6	5	4.0	3.8	4.2	3.7	39	36	38	22	24	20		
NORTH	10.06.2020	7	4	2	2	4	3	1	2	2	4	2	1	3	2	2	ND	4	3	ND	2	5	3	3	2	5	4	3	3	3.5	3.2	1.7	1.7	36	38	40	22	23	21		
	25.06.2020	7	3	3	2	3	3	2	3	2	4	2	3	4	3	2	4	3	2	4	2	4	3	ND	2	4	4	4	4	3.0	2.8	2.3	2.7	37	33	38	20	24	22		
SOUTH	10.06.2020	5	4	3	4	4	6	5	3	4	3	2	3	3	4	4	4	4	4	3	5	5	3	5	6	5	6	6	6	4.5	4.2	3.8	4.2	45	41	43	25	23	25		
	25.06.2020	5	5	6	3	4	3	4	5	5	4	5	4	7	4	7	5	5	6	7	4	4	5	6	7	5	7	6	5.2	4.2	5.5	6.0	44	46	43	27	25	28			

ND: Not Detectable

Tr: Trace

FORMAT - II B

Ambient air quality data at Nagda for the month of : June 2020

Sampling location	Month & Year	SO ₂ $\mu\text{g}/\text{m}^3$				NO _x $\mu\text{g}/\text{m}^3$				CS ₂ $\mu\text{g}/\text{m}^3$				H ₂ S $\mu\text{g}/\text{m}^3$				PM10 microgram/M3					PM2.5 microgram/M3				
		n	A.M.	S.D.	Peak	n	A.M.	S.D.	Peak	n	A.M.	S.D.	Peak	n	A.M.	S.D.	Peak	n	A.M.	S.D.	Peak	G.M.	n	A.M.	S.D.	Peak	G.M.
EAST Fabrication Shop	Jun. 2020	18	5.4	2.1	10	18	4.8	1.9	9	18	4.9	1.2	7	18	4.1	1.4	7	9	45	1.8	48	45	8	25	1.8	25	25
WEST Vishnu Bhawan	Jun. 2020	18	3.4	1.0	5	18	3.0	1.0	5	18	2.7	1.2	6	18	2.6	1.1	5	9	38	1.6	41	39	9	22	1.7	25	22
NORTH Labour-Club	Jun. 2020	12	3.3	0.9	5	12	3.0	0.7	4	12	2.4	0.8	4	12	2.4	0.8	4	8	37	2.2	40	37	6	20	1.3	24	22
SOUTH Dairy	Jun. 2020	12	4.8	1.1	7	12	4.2	0.9	6	12	4.7	1.4	7	12	5.1	1.5	8	8	44	1.8	46	44	8	26	1.8	25	26

A.M.=Arithmetic mean, S.D.=Standard Deviation, G.M.=Geometric mean/n=number of observation

Note: Norms for SO₂, NO₂, PM10 & PM2.5 as per National Ambient Air Quality Standards and Permissible limit for CS₂ = 100 $\mu\text{g}/\text{m}^3$ and H₂S = 150 $\mu\text{g}/\text{m}^3$

FORMAT - II A

Ambient air quality data at Nagda for the month of July-2020
All results expressed as Microgram/M3

Site	Date	01-10				11-14				15-18				19-22				23-26				27-30				Total Avg				PM10		PM2.5							
		PM10	PM2.5	SO2	NO2	PM10	PM2.5	SO2	NO2	PM10	PM2.5	SO2	NO2	PM10	PM2.5	SO2	NO2	PM10	PM2.5	SO2	NO2	PM10	PM2.5	SO2	NO2	SO2	NO2	PM10	PM2.5	PM10	PM2.5								
EAST	06.07.2020	9	8	7	7	10	11	7	8	9	9	8	6	11	1	18	8	12	12	11	13	3	10	6	4	12	10	19	15	8.8	8.5	8.5	8.8	38	45	44	38	28	29
	22.07.2020	7	5	10	8	11	8	8	8	8	8	8	8	10	7	5	8	5	6	7	10	8	9	8	11	10	10	8	8.5	7.8	8.2	8.8	48	45	41	23	39	38	
WEST	06.07.2020	5	7	5	5	4	5	4	3	6	4	5	3	4	3	4	3	1	4	3	6	5	7	3	8	3	1	4	8.0	5.0	4.8	4.0	42	40	38	31	23	26	
	23.07.2020	-	6	3	5	4	4	5	4	5	4	3	3	3	7	5	4	7	9	3	8	5	4	8	3	7	8	13	5.8	5.0	5.7	5.0	41	40	40	27	19	21	
NORTH	06.07.2020	8	5	5	4	6	5	7	6	7	6	6	6	8	8	8	7	3	7	8	5	8	5	1	7	7	7	17	4.8	5.0	5.2	5.2	41	41	40	36	22	21	
	21.07.2020	5	7	6	5	6	4	5	8	4	6	3	4	3	4	3	4	3	4	3	6	6	6	6	8	7	7	6	5.5	6.2	5.2	4.8	39	42	41	23	20	21	
SOUTH	06.07.2020	10	7	8	8	9	10	8	11	8	6	7	8	9	8	12	11	8	8	10	8	10	6	12	11	10	10	10.0	8.5	7.5	8.0	47	45	46	34	28	30		
	24.07.2020	11	5	9	7	9	11	7	8	10	7	10	8	9	14	6	5	11	8	8	9	8	9	8	11	10	9	9.7	8.5	8.2	8.2	46	47	46	37	25	30		

BDL : Below detectable Limit Yr: Traces ND: Not Detected

FORMAT - II B

Ambient air quality data at Nagda for the month of July-2020

Sampling location	Month & Year	SO2 microgram/m3				NO2 microgram/m3				CO2 microgram/m3				H2S microgram/m3				PM10 microgram/m3										
		n	A.M.	S.D.	Peak	n	A.M.	S.D.	Peak	n	A.M.	S.D.	Peak	n	A.M.	S.D.	Peak	GM										
EAST	July-2020	12	8.2	1.7	11	12	8.5	2.0	12	12	8.9	3.8	11	12	7.8	1.9	11	8	47	1.7	46	40	8	27	1.3	25	27	
Fabrication Shop	July-2020	12	5.9	1.8	8	12	9.0	1.3	7	12	8.9	1.5	8	12	4.7	1.2	7	8	41	1.5	43	41	8	21	1.5	23	21	
WEST	July-2020	12	5.2	1.8	8	12	5.9	1.0	7	12	8.9	1	8	12	5.0	1.2	7	8	41	1.3	43	41	8	29	1.1	23	21	
Vishva Bhawan	July-2020	12	8.5	1.7	11	12	7.8	1.8	10	12	8.8	1.8	10	8	48	1.8	45	47	8	28	1.7	28	25					
NORTH	July-2020	12	5.2	1.8	8	12	8.5	1.7	11	12	8.5	1.7	11	12	7.8	1.8	10	8	48	1.8	45	47	8	28	1.7	28	25	
Labour Club	July-2020	12	8.5	1.7	11	12	8.5	1.7	11	12	8.5	1.7	11	12	7.8	1.8	10	8	48	1.8	45	47	8	28	1.7	28	25	
SOUTH	July-2020	12	8.5	1.7	11	12	8.5	1.7	11	12	8.5	1.7	11	12	7.8	1.8	10	8	48	1.8	45	47	8	28	1.7	28	25	
Dairy	July-2020	12	8.5	1.7	11	12	8.5	1.7	11	12	8.5	1.7	11	12	7.8	1.8	10	8	48	1.8	45	47	8	28	1.7	28	25	

n = Number of observations S.D = Standard Deviation G.M = Geometric mean n = number of observations
 n = 7 days SO2 = 802 PM10 = 502 NO2 = 24 per national Ambient Air Quality Standards and Permissible Limit for CO2 = 100 µg/m3 and H2S = 150 µg/m3

FORMAT - II A

Ambient air quality data at Nagda for the month of : August-2020
All results expressed as Microgram/M3

Dir-ctn	Smp- Date	08-10				10-14				14-18				18-22				22-26				26-30				4Hrs				8Hrs				24Hrs Avg				8 hrs Avg		PM10		24 hrs Avg	
		NO2	CO2	H2S	SO2	NOx	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	14-18	14-22	22-06	6-14	14-22	
EAST	02.08.2020	18	17	16	16	22	19	17	20	20	18	14	15	15	20	16	17	21	18	13	20	19	21	16	18	22	21	19	20	18.7	19.0	18.0	16.7	45	46	40	24	26					
	17.08.2020	19	15	16	17	18	18	13	19	21	26	14	16	18	19	15	19	20	15	17	20	17	18	16	10	21	20	17	20	18.5	17.7	15.2	18.2	49	47	44	27	29					
WEST	03.08.2020	9	11	11	12	10	12	10	11	12	9	11	10	10	10	12	14	12	12	9	10	10	11	8	9	13	12	12	14	10.5	10.8	10.2	11.3	40	31	39	32	24					
	17.08.2020	14	12	10	12	16	14	13	11	13	11	12	9	11	10	18	11	15	13	11	12	10	12	9	10	16	18	14	12	13.2	12.0	11.5	10.8	46	45	46	21	25					
NORTH	05.08.2020	13	10	13	11	16	13	11	11	12	14	10	9	10	10	12	12	13	16	13	14	12	11	11	14	13	14	13	11.6	11.7	12.0	11.0	38	41	43	25	21						
	19.08.2020	16	16	11	10	10	11	10	12	12	8	12	9	14	10	9	11	11	12	13	10	10	13	11	10	14	13	13	11.7	11.2	11.0	10.8	42	40	36	32	21						
	29.08.2020	12	14	10	11	11	13	12	13	13	11	13	10	10	12	11	11	9	8	10	12	12	10	12	10	13	14	15	13	11.3	11.5	11.9	11.2	39	41	38	20	22					
SOUTH	02.08.2020	14	13	13	13	18	15	13	15	15	20	15	11	13	14	14	16	14	18	16	16	12	16	12	14	16	20	18	16	14.7	17.3	13.5	13.2	47	49	46	27	29					
	19.08.2020	11	12	13	11	10	16	11	13	11	14	14	10	15	13	12	12	12	16	15	14	10	17	11	18	17	17	17	16	14.6	14.6	13.7	12.7	46	45	47	30	25					
	24.08.2020	21	15	16	12	19	13	16	14	17	18	16	11	16	14	13	16	20	12	18	15	15	17	17	15	21	17	16	16.3	14.5	15.5	13.5	49	47	46	28	29						

FORMAT - II B

Ambient air quality data at Nagda for the month of : August-2020

Sampling Location	Month	SO2 microgram/M3				NO2 microgram/M3				CO2 microgram/M3				H2S microgram/M3				PM10 microgram/M3					PM2.5 microgram/M3				
		n	A.M	S.D	Peak	n	A.M	S.D	Peak	n	A.M	S.D	Peak	n	A.M	S.D	Peak	n	A.M	S.D	Peak	G.M	n	A.M	S.D	Peak	G.M
EAST Fabrication Shop	Aug-2020	12	19.1	1.7	22	12	18.3	1.6	21	12	15.6	1.6	19	12	18.4	1.5	20	6	47	1.8	48	47	6	27	1.5	29	27
WEST Vitroa Bhawan	Aug-2020	12	11.8	2.2	16	12	11.4	1.3	14	12	10.8	1.7	12	12	11.2	1.5	14	6	43	1.0	48	42	6	23	1.5	25	22
NORTH Labour Camp	Aug-2020	18	11.4	1.5	14	18	11.3	1.5	14	18	11.4	1.5	14	18	11.0	1.2	13	9	40	1.8	49	40	9	22	1.1	23	22
SOUTH Dairy	Aug-2020	18	15.3	3.1	21	18	15.3	3.2	20	18	14.7	3.5	18	18	13.1	3.0	16	9	47	3.1	48	47	9	27	1.4	28	23

A.M: Arithmetic mean; S.D: Standard Deviation; G.M: Geometric mean; n: number of observations

ND: Not Detected

* Norms for SO2, NO2 & SPN as per NAAQM Standard and * Permissible limit for CO2 = 150 µg/m3 and H2S = 150 µg/m3

FORMAT - II A

Ambient air quality data at Nagda for the month of : September-2020
All results expressed as Microgram/M3

Dirn. cation	Date	8-10				10-14				14-18				18-22				22-02				02-06				4Hrs Max.				24Hrs Avg.				8 Hrs Avg		PM10	8 Hrs Avg		PM2.5
		SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2	CO2	H2S	SO2	NO2
EAST	07.09.2020	8	9	9	14	12	10	10	8	9	9	11	16	7	11	8	8	10	8	8	19	9	10	10	12	13	11	19	9.2	9.3	9.5	12.2	45	43	45	22	24	23	
	21.09.2020	18	17	17	18	15	20	18	18	18	19	18	17	21	18	14	19	22	15	18	22	16	17	15	20	22	20	18	22	19.6	17.7	15.8	18.7	44	46	42	24	29	28
WEST	07.09.2020	12	14	14	10	13	12	12	11	10	11	13	12	12	10	10	5	9	8	6	14	9	11	11	12	13	14	14	14	10.7	11.0	11.0	10.7	39	42	44	20	20	18
	21.09.2020	16	15	8	15	15	11	12	9	12	14	14	11	14	12	13	12	12	16	12	14	16	16	14	12	16	10	14	15	14.2	15.5	12.3	12.3	46	42	48	24	19	20
NORTH	09.09.2020	9	12	10	10	12	11	9	12	13	10	14	9	11	13	8	14	16	14	12	12	17	10	16	13	17	14	16	14	15.0	11.5	11.3	11.7	43	45	42	22	19	20
	25.09.2020	14	15	11	13	11	16	13	10	13	11	8	12	15	14	13	8	16	11	11	11	15	15	12	12	16	18	13	14.0	15.7	11.5	11.0	42	40	38	22	21	23	
SOUTH	09.09.2020	17	16	12	12	19	18	10	11	20	19	14	13	18	20	11	14	21	17	10	17	22	18	10	15	22	20	14	15	19.5	17.8	11.7	12.6	48	48	45	24	23	26
	25.09.2020	18	14	14	18	14	18	16	12	13	16	15	18	16	12	11	16	15	20	18	15	11	18	13	17	18	20	19	19	14.5	16.3	14.7	16.2	47	44	45	24	26	23

BDL : Below detectable limit

Tr.: Trace

ND: Not Detected/Nil

FORMAT - II B

Ambient air quality data at Nagda for the month of : September-2020

Sampling location	Month & Year	SO2 microgram/M3				NO2 microgram/M3				CO2 microgram/M3				H2S microgram/M3				PM10 microgram/M3					PM2.5 microgram/M3																		
		n	A.M	S.D	Peak	n	A.M	S.D	Peak	n	A.M	S.D	Peak	n	A.M	S.D	Peak	n	A.M	S.D	Peak	G.M	n	A.M	S.D	Peak	G.M														
EAST	September-2020	12	14.1	5.2	22	12	13.5	4.4	20	12	12.7	3.4	18	12	15.4	5.1	22	6	44	1.3	48	44	6	25	2.5	29	20														
Fabrication Shop	September-2020	12	12.4	2.5	16	12	13.3	3.2	19	12	11.7	2.3	14	12	11.5	2.6	15	6	44	2.9	48	43	6	20	1.9	24	20														
WEST	September-2020	12	15.5	2.3	17	12	12.9	2.0	18	12	12.2	2	16	12	11.3	1.7	14	6	42	2.2	45	42	6	22	1.4	23	22														
Vishnu Bhawan	September-2020	12	17.0	3.2	22	12	17.1	2.3	20	12	13.2	2.5	19	12	14.5	2.5	19	6	46	1.3	48	46	6	24	1.2	28	24														
NORTH	September-2020																																								
Lepore Club																																									
SOUTH																																									
Daily																																									

A.M =Arithmetic mean, S.D =Standard Deviation, G.M =Geometric mean, n=number of observation

Note: Norms for SO2, NO2, PM10 & PM2.5 as per National Ambient Air Quality Standards and Permissible limit for CO2 = 100 µg/m3 and H2S = 150 µg/m3

Monitoring the Implementation of Environmental Safeguards
Ministry of Environment, Forest & Climate change
Regional Office (WZ) Bhopal
Monitoring report

DATA SHEET

Sr. No.	Particular	Reply
1.	Project Type: River Valley / Mining / Industry / Thermal/Nuclear/Other (Specify)	Captive Thermal Power Plant
2.	Name of the Project	Grasim Industries Limited, 40 MW Thermal Power Plant, Birlagram, Nagda – 456 331 M.P.
3.	Clearance letter(S) /OM No. and date	OM No. J-13011/18/94-IA/II dated 01.03.1995
4.	Location:	
a	District	Ujjain
b	State	Madhya Pradesh
c	Location / latitude / longitude	Birlagram, Nagda Latitude 23.4483, Longitude 75.4081 (23°26'53.9"N 75°24'29.2"E)
5.	Address for correspondence	Mr K Suresh, (Sr. President & Unit Head)
a	Address of concerned Chief Engineer (With Pin Code & Mob. No./Telephone/Telefax/E-mail)	Grasim Industries Limited 40 MW Thermal Power Plant, Birlagram, Nagda – 456 331 Madhya Pradesh E-Mail - environmentcell@adityabirla.com Telephone - 07366 - 246760
b	Address of concerned Project Engineer (With Pin Code & Mob. No./Telephone/Telefax/E-mail)	Mr Minesh Agarwal, (Vice President) 40 MW Thermal Power Plant Staple Fibre Division, Birlagram, Nagda – 456 331 Madhya Pradesh E-Mail - environmentcell@adityabirla.com Telephone - 07366 - 246760
6.	Salient Features	
a	Of the project	The self-Generation of power meet the total requirement of M/s Grasim Industries Limited.
b	Of the Environment Management Plan	1. Two Electrostatic Precipitator connected to each Boiler 2. Ash Handling Pant for collection of Fly Ash and Silo for storage of the Fly Ash 3. Lamella Clarifier for separation of fly ash from waste water 4. Full Fledged Common ETP for treatment of Waste Water 5. Mechanical Coal Handling System, 6. Sprinklers System for Dust Suppression 7. Covered Coal Conveyor System

Sr. No.	Particular	Reply
7.	Production details during compliance period and during the previous financial years.	Generation of Power *Apr-20 – Sep-20 – Nil MWh FY 2019-2020 – 20.04 MWh
8.	Breakup of the Project Area	
a	Submerged area: forest & Non Forest	None
b	Others	1.3 Hectare in existing premises
9.	Breakup up of the project affected populations with enumeration of those losing house/dwelling unit only agricultural land & land less labours/artisan	Project is setup in existing premises and no population is affected.
a	SC, ST, Adivasi	
b	Others (Please indicate whether these figures are based on any scientific and systematic survey carried out give details and year of survey)	
10.	Financial Detail	
a	Project Cost as originally revised estimates and the year of price reference	75 Crores
b	Allocation made for environment management plan with item wise and year wise break up	<ul style="list-style-type: none"> • Electrostatic Precipitator 2 Nos - Rs. 238 Lacs • Fly Ash handling system – Rs 45.38 Lacs. • Stack 76-Meter Height – Rs.63.13 Lacs • Dust Suppression System – Rs. 9.67 Lacs • Water Recycling System – Rs. 4.27 Lacs Industry has also installed Continuous Emission Monitoring System (CEMS) at Stacks - Rs. 26.43 Lacs.
c	Benefits cost ratio/internal rate of return and the year assessment (if applicable)	Not Applicable
d	Whether above includes the cost of environment management as shown in the above	Not Applicable
e	Actual expenditure incurred on the project so far	95.86 Crores
f	Actual expenditure incurred in the environment management plan so far	4.98 Crores
11.	Forest Land Requirement	Project is in existing premises.
a	The status of approval for diversion of forest land for non-forestry use	Not Applicable
b	The status of cleaning felling	
c	The status of compensatory afforestation, if any	
d	Comments on the viability & sustainability of compensatory	

Sr. No.	Particular	Reply
	afforestation programme in the light of actual field experience so far.	
12.	The status of clear felling in non-forest areas (Such as submerged area of reservoir, approach roads) if any with quantitative information	Not Applicable
13.	Status of construction	Actual date of commissioning is 04.08.1996
a	Date of commencement (Actual and /or Planned)	
b	Date of completion (actual and /or Planned)	
14.	Reasons for the delay if the project is yet to start	Not Applicable
15.	Details of site visit	NA
a	The dates on which the project was monitored by the MoEF & CC ,Regional Office on previous occasions.(If applicable)	
b	Date of site visit for this monitoring report	
16.	<p>Details of correspondence with project authorities for obtaining action plans/ information on status of compliance to safeguards other than the routine letters for logistic support for site visit</p> <p>(The first monitoring report may contain the details of the letters issued so far but the later reports may cover only the letters issued subsequently)</p>	<p>Communication Received from Regional Office, Western Region of MoEF & CC vide File No.4-1/1995/(ENV)/146 dated 06.02.2020. Communication had following instruction for industry;</p> <ol style="list-style-type: none"> 1. Instruction for mentioning Permissible Value in future submission of quarterly Emission & Discharge Monitoring Reports – Industry has incorporated the same in monitoring reports for future submission. 2. Instruction for submission of Data Sheet with Six Monthly Compliance Report – Industry has included the Data sheet in six monthly compliance report. <p>Industry has also communicated the same vide our letter dated 1486A/Env-SFD/MoEF/RO(W)/BPL/40MW dated 18.02.2020.</p>

Remark- Plant was under shutdown during reporting period due to COVID-19 precautions.

Signature of Project in Charge