



November 29, 2021

No.1726/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 2021 to September 2021 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 - 2021 to September - 2021 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,

B. Mary
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 2021 – SEPTEMBER 2021

Submitted on: 1 DECEMBER 2021

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 in Grasim Complex (SED, EFD & CPP) 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 & NABL accredited laboratory on a regular basis.
6. 03 No. of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) along with other Environmental Parameter from Grasim Complex (SED, EFD & CPP) 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. Industry has completed ZLD Project as per stipulation given by MPPCB, CPCB, & MoEFCC, Bhopal on 30.09.2021.
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 2021 – SEPTEMBER 2021

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. AW-53917 dated 05.08.2021 valid up to 31.07.2022. • Consent under The Air (Prevention and Control of Pollution) Act 1981 issued vide letter no. AW-53917 dated 05.08.2021 valid up to 31.07.2022. • 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. The current status of ESP efficiency is 99.81 %
4	The particulate emission shall not exceed the prescribed limit of 350 mg/Nm ³ at any time	Two High Efficiency Electrostatic Precipitators have 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. Summary of emission monitoring report for reporting period 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 measured has 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 all 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.	Liquid effluent treated in common effluent treatment plant before and it is ensured that discharge effluent conform to the prescribe standards before discharging to nallah. Summary of treated effluent monitoring report for

Sr.	Conditions and Environmental Safeguards	Compliance Status
		<p>reporting period is enclosed as Exhibit -2</p> <p>Treated waste water is utilized for sprinkler system for coal storage & coal handling area and fly ash quenching.</p> <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>Industry is regularly conducting the analysis by NABL accredited laboratory for the treated effluent from SFD as all the effluents are treated in common ETP of SFD. All test results are well within the stipulated norms.</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 submitting the Annual Implementation Report for compliance of the provisions of Fly Ash Notification. Last Annual Implementation Report is submitted vide our letter No. 1659/Env-SFD/MoEF/Fly Ash Comp Rep on 24.04.2021.</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</p>	<p>Regular monitoring of the ambient air quality around the industrial campus (SFD, EFD & CPP) is being carried out</p>

Sr.	Conditions and Environmental Safeguards	Compliance Status
	<p>quality may be submitted to this Ministry. Data on S02 emission should be rechecked and furnished to the ministry within three months.</p>	<p>on regular basis and record are being maintained. Industry has installed 03 (Three) Nos of Continuous Ambient Air Quality Monitoring system (CAAQMS) for Grasim (SFD, EFD & CPP) in consultation with M.P. Pollution Control Board for continuous monitoring of 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 of Grasim complex (SFD, EFD & CPP) 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 Jul-2021 to Sep-2021 vide our letter No. 1712/Env-SFD/MoEF/BPL/Report dated 09.10.2021.</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

Sr.	Conditions and Environmental Safeguards	Compliance Status
		<ul style="list-style-type: none"> • Water Recycling System – Rs. 4.27 Lacs • Industry has installed Continuous Emission Monitoring System (CEMS) at Stacks - Rs. 26.43 Lacs.
14	The stipulated conditions will be monitored by our Regional Office, Located in Bhopal.	Acknowledged
15	A half yearly report on the status implementation of the stipulated conditions and environmental safeguards shall be submitted to this Ministry.	A half yearly compliance monitoring report of is being submitted to MoEF&CC regularly. Industry has submitted last six monthly compliance report vide letter No. 1669/Env-SFD/MoEF/RO/BPL/EC-40MW dated 29.05.2021 for the period from October 2020 to March 2021.
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-21	15.3	127	6.92	74.97	86	557	379	19
May-21	15.3	127	6.78	73.18	83	525	384	20
Jun-21	15.3	128	6.62	70.93	85	521	368	18
Jul-21	15.3	124	6.84	73.71	86	548	384	19
Aug-21	15.3	126	6.66	71.81	84	521	372	20
Sep-21	15.3	126	6.74	72.55	83	520	386	19

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-21	7.3	7.1	7.4	57	48	64	19	15	22	0.23	0.13	0.39
May-21	7.2	6.9	7.4	58	50	64	19	16	22	0.25	0.13	0.39
Jun-21	7.3	7.3	7.4	57	50	63	19	15	21	0.23	0.13	0.39
Jul-21	7.2	6.9	7.4	57	50	62	20	17	23	0.21	0.13	0.39
Aug-21	7.1	6.9	7.2	57	50	61	16	12	20	0.18	0.13	0.39
Sep-21	7.1	6.8	7.3	51	44	59	19	16	23	0.26	0.13	0.39

- Industry has achieved Zero Liquid Discharge on 30.09.2021 so no treated effluent is being discharged since then.

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-2021

All results expressed as Microgram/M3

Direction	Date	6 - 10			10 - 14			14 - 18			18 - 22			22 - 02			02 - 06			4Hrs Max.			24Hrs Avg			8 Hrs Avg			8 Hrs Avg												
		SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	SO2	H2S	SO2	NO2	CS2	SO2	H2S	SO2	NO2	CS2	SO2	H2S	SO2	NO2	CS2						
EAST	05.04.2021	18	17	17	16	19	20	15	18	18	19	16	17	15	20	22	15	18	17	15	20	18	22	19.0	17.7	15.8	18.7	44	46	42	24	29	28								
	19.04.2021	8	8	8	7	10	11	7	6	9	9	8	11	7	10	9	9	12	11	11	12	11	11	9	10	6	7	12	12	11	11	9.8	9.5	8.5	8.0	46	49	44	26	28	25
WEST	05.04.2021	16	15	9	15	15	11	12	9	12	14	14	11	14	19	13	13	12	18	12	18	12	14	16	16	14	16	19	14	15	14.2	15.5	12.3	12.3	46	42	48	24	19	20	
	19.04.2021	6	7	6	5	4	5	4	3	8	4	5	6	7	6	3	4	5	3	4	5	3	4	5	6	5	7	3	8	7	6	6.0	5.0	4.8	4.3	42	40	39	21	23	20
NORTH	07.04.2021	13	14	12	10	11	16	14	12	12	13	10	14	14	12	11	9	15	13	13	13	15	15	14	14	12	11	15	16	14	12.5	13.2	12.0	11.3	38	40	39	20	21	22	
	22.04.2021	13	10	13	11	10	13	11	9	11	12	10	9	10	13	12	10	13	10	10	10	12	13	14	14	13	11	14	13	11.5	11.7	12.0	11.0	38	41	43	23	21	20		
	28.04.2021	10	12	13	12	11	13	12	13	12	14	14	11	10	12	11	10	12	11	10	12	12	14	14	13	11.0	11.7	11.8	11.2	40	39	41	21	23	22						
SOUTH	07.04.2021	20	19	17	20	16	17	20	17	15	18	16	18	18	16	17	20	21	19	19	14	14	20	21	20	18.0	18.5	17.8	46	48	45	27	25	28							
	22.04.2021	16	17	15	13	18	15	13	10	15	20	11	11	13	19	14	16	17	16	16	16	14	14	14	14	17.5	13.5	13.2	47	49	46	27	29	26							
	28.04.2021	20	16	14	11	19	13	17	14	18	15	19	10	18	13	21	18	15	15	14	17	15	17	16	18.8	14.2	16.3	13.3	47	45	46	29	26	27							

FORMAT - II B

Ambient air quality data at Nagda for the month of : April-2021

Sampling Location	Month & Year	SO2 microgram/M3			NO2 microgram/M3			CS2 microgram/M3			H2S microgram/M3			PM10 microgram/M3			PM2.5 microgram/M3										
		n	A.M.	Peak	n	A.M.	Peak	n	A.M.	Peak	n	A.M.	Peak	n	A.M.	Peak	n	A.M.	Peak								
EAST Fabrication Shop	Apr. 2021	12	14.4	4.9	22	12	13.6	4.4	20	12	12.2	4.0	18	12	13.3	5.6	22	6	45	2.2	49	45	6	27	1.8	29	27
WEST Vishnu Bhawan	Apr. 2021	12	10.1	4.3	16	12	10.3	5.6	19	12	8.6	4.1	14	12	8.3	4.3	15	6	43	3.2	48	43	6	21	1.8	24	21
NORTH Labour-Club	Apr. 2021	18	11.7	1.6	15	18	12.2	1.7	16	18	11.9	1.4	14	18	11.2	1.4	14	9	40	1.5	43	40	9	21	1.1	23	21
SOUTH Dairy	Apr. 2021	18	16.7	2.5	21	18	16.6	2.2	20	18	16.1	2.8	21	18	14.8	2.9	20	9	47	1.3	49	47	9	27	1.3	29	27

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

* Norms for SO2 ,NO2 & SPM as per NAAQM Standard and Permissible limit for CS2 = 100 µgm3 and H2S = 150 µgm3

ND = Not Detected

FORMAT - II A

Ambient air quality data at Nagda for the month of : May-2021
All results expressed as Microgram/M3

Dir- ction	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	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2		CS2	6-14	14-22	22-06	6-14	14-22	22-06					
EAST	03.05.2021	17	18	14	15	19	20	16	18	17	21	15	17	17	15	17	15	17	18	21	17.7	17.2	15.8	17.8	43	44	42	25	28	27		
	21.05.2021	19	15	17	18	18	14	15	20	15	19	14	16	19	16	19	13	16	13	15	19	16.3	15.7	14.7	17.5	45	48	46	25	27	26	
WEST	03.05.2021	15	14	10	14	16	10	9	10	11	9	11	9	12	17	12	15	15	12	16	18	13.7	14.2	11.2	12.0	44	41	45	25	20	22	
	21.05.2021	18	14	13	12	16	16	14	13	19	17	18	15	14	15	18	11	18	20	14	20	17.2	16.7	15.0	12.5	41	40	40	23	21	20	
NORTH	05.05.2021	14	13	14	9	12	11	10	12	11	11	12	10	13	10	13	11	11	10	9	15	13	11.3	11.3	11.7	10.7	41	38	39	19	21	20
	23.05.2021	13	11	14	10	10	14	11	9	12	10	13	11	10	11	12	10	12	10	12	14	11.3	11.8	11.5	10.5	40	41	41	20	22	21	
SOUTH	05.05.2021	17	20	16	19	15	17	17	15	16	16	18	15	18	18	15	17	17	18	20	20	16.5	17.3	17.5	17.0	45	46	47	28	25	27	
	23.05.2021	17	18	17	18	19	16	14	17	14	16	16	16	16	19	15	14	14	13	19	18	15.7	16.2	14.5	15.2	48	47	48	26	28	27	

BDL : Below detectable Limit
 Tr. : Traces
 ND: Not Detectable

FORMAT - II B

Ambient air quality data at Nagda for the month of : May-2021

Sampling location	Month & Year	SO2 microgram/M3			NO2 microgram/M3			CS2 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	n	A.M.	S.D. Peak	G.M.						
EAST Fabrication Shop	May-2021	12	17.0	2.2	12	16.4	2.1	20	12	15.3	1.5	18	12	17.7	1.9	21	6	45	2.0	48	45	6	26	1.1	28	26
	May-2021	12	15.4	2.4	12	15.4	2.8	20	12	13.1	2.4	18	12	12.3	1.6	15	6	42	2.0	45	42	6	22	1.8	25	22
WEST Vishnu Bhawan	May-2021	12	12.1	1.6	12	11.6	1.2	14	12	12.2	1	14	12	10.6	1.3	13	6	40	1.2	41	40	6	21	1.0	22	20
	May-2021	12	16.1	1.7	12	16.8	1.8	20	12	16.0	2.1	20	12	16.1	2.0	19	6	47	1.1	48	47	6	27	1.1	28	27

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 µg/m³ and H2S = 150 µg/m³

FORMAT - II A

Ambient air quality data at Nagda for the month of : June 2021

All results expressed as µg/m³

Direction	Hrs. Date	6 - 10			10 - 14			14 - 18			18 - 22			22 - 02			02 - 06			4Hrs Max.			24Hrs Avg			8 Hrs Avg			8 Hrs Avg											
		SO ₂	NO ₂	CS ₂	H ₂ S	SO ₂	NO ₂	CS ₂	H ₂ S	SO ₂	NO ₂	CS ₂	H ₂ S	SO ₂	NO ₂	CS ₂	H ₂ S	SO ₂	NO ₂	CS ₂	H ₂ S	SO ₂	NO ₂	CS ₂	H ₂ S	SO ₂	NO ₂	CS ₂	H ₂ S	SO ₂	NO ₂	CS ₂								
EAST	07.06.2021	19	16	15	16	22	18	13	17	18	17	15	15	18	17	17	18	17	17	18	17	17	15	20	14	16	22	20	18	20	18.5	17.2	15.3	17.3	44	43	42	28	26	25
	21.06.2021	18	14	16	19	18	14	15	18	16	15	14	17	18	15	11	19	14	16	14	14	18	18	18	16	19	18	18	16.7	15.7	14.2	17.5	46	47	47	26	27	25		
	28.06.2021	14	15	11	14	12	18	17	17	14	17	13	18	11	19	14	15	10	15	17	19	17	20	18	20	18	20	13.0	17.3	15.0	17.2	45	47	47	25	26	26			
WEST	07.06.2021	14	13	9	14	11	11	10	9	10	15	11	11	15	16	10	11	15	13	12	15	16	12	15	16	12	15	13.2	13.7	10.5	11.7	41	43	42	24	22	25			
	21.06.2021	16	15	14	11	15	17	14	12	18	16	15	13	14	17	15	11	15	11	15	16	17	10	19	19	17	13	16.2	16.7	15.0	11.5	42	41	40	20	22	21			
	28.06.2021	12	9	9	11	10	11	11	12	11	10	10	12	13	12	11	10	12	11	12	14	14	13	13	12	14	14	11.8	10.7	10.7	11.8	40	41	40	22	20	21			
NORTH	08.06.2021	15	10	12	10	10	11	10	12	14	11	14	9	16	12	13	10	10	12	10	16	12	12	14	12	12	12	12.8	10.8	11.5	10.5	40	39	40	18	20	21			
	22.06.2021	10	10	12	9	11	13	11	11	13	10	12	10	10	10	11	10	11	11	11	13	13	13	12	12	11	11	11.3	11.3	11.3	10.5	41	40	42	22	20	22			
	08.06.2021	17	19	16	18	15	17	17	17	16	15	17	16	18	18	18	18	18	18	18	19	18	20	20	20	20	18.0	17.5	17.5	16.7	46	44	46	27	26	27				
SOUTH	22.06.2021	19	15	16	17	16	17	14	17	18	14	12	15	15	14	15	15	16	14	16	12	19	18	18	16	17	16.3	15.5	14.7	15.2	47	49	48	27	26	25				

ND: Not Detectable

Tr.: Traces

FORMAT - II B

Ambient air quality data at Nagda for the month of : June 2021

Sampling location	Month & Year	SO ₂ µg/m ³			NO ₂ µg/m ³			CS ₂ µg/m ³			H ₂ S µg/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	n	A.M.	S.D. Peak	G.M.							
EAST Fabrication Shop	Jun. 2021	18	16.1	3.0	22	18	16.7	1.8	20	18	14.8	2.0	18	18	17.3	1.8	20	9	4.5	1.8	4.7	4.5	9	2.6	0.9	2.8	2.6
WEST Vishnu Bhawan	Jun. 2021	18	13.7	2.5	19	18	13.7	2.8	19	18	12.1	2.3	17	18	11.7	1.6	15	9	4.1	1.0	4.3	4.1	9	2.2	1.6	2.5	2.2
NORTH Labour-Club	Jun. 2021	12	12.0	2.0	16	12	11.1	1.1	13	12	11.4	1.0	14	12	10.5	1.0	12	6	4.0	0.9	4.2	4.0	6	2.1	1.4	2.2	2.0
SOUTH Dairy	Jun. 2021	12	16.4	1.5	19	12	16.8	2.0	20	12	16.1	1.9	20	12	15.9	1.7	18	6	4.7	1.6	4.9	4.7	6	2.6	0.7	2.7	2.6

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 µg/m³ and H₂S = 150 µg/m³

FORMAT - II A

**Ambient air quality data at Nagda for the month of : July-2021
All results expressed as Microgram/M3**

Direction	Date	6 - 10			10 - 14			14 - 18			18 - 22			22 - 02			02 - 06			4Hrs Max			24Hrs Avg			8Hrs Avg			PM10			8Hrs Avg			PM2.5							
		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	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	
EAST	09.07.2021	21	19	14	20	20	17	12	16	19	20	13	15	21	15	17	19	18	18	15	16	18	18	17	17	11	17	21	20	17	20	19.3	17.7	13.7	17.2	46	48	47	47	27	25	26
	19.07.2021	19	16	14	17	18	13	12	19	14	12	13	15	16	17	14	16	15	12	18	16	16	18	18	14	17	19	18	14	19	16.3	15.2	13.2	17.0	47	45	46	27	25	26		
	06.07.2021	10	15	10	15	12	9	10	14	16	12	9	11	15	10	12	13	13	12	13	13	14	10	14	15	16	16	12	15	12.5	14.0	10.5	12.2	42	44	43	23	24	22			
	19.07.2021	15	19	17	10	15	16	15	11	17	15	14	13	17	12	12	18	14	17	14	17	14	13	18	19	18	14	14	15.8	17.0	15.0	12.2	40	41	41	21	20	22				
NORTH	06.07.2021	14	11	14	9	12	10	11	11	10	12	10	15	11	11	10	10	11	13	9	11	12	15	12	14	13	18	19	18	14	12.5	10.5	11.5	10.8	39	41	40	20	19	20		
	20.07.2021	9	13	11	10	11	12	11	9	12	10	10	10	11	9	12	10	11	12	10	11	12	15	12	14	13	12	15	12	10.3	11.3	10.7	10.0	42	41	40	21	22	21			
	06.07.2021	18	20	20	17	16	18	17	16	15	15	17	15	14	16	16	14	15	18	16	15	16	18	20	20	20	18	20	15.8	17.3	17.3	16.2	44	47	45	26	25	27				
SOUTH	06.07.2021	18	20	20	17	16	18	17	16	15	15	17	15	14	16	16	14	15	18	16	15	16	18	20	20	20	18	20	15.8	17.3	17.3	16.2	44	47	45	26	25	27				
	20.07.2021	20	14	14	18	17	13	12	16	15	15	16	15	14	16	15	13	14	15	14	14	15	13	20	18	15	16	18	16.3	14.7	14.3	14.2	48	47	47	26	25	26				

BDL : Below detectable Limit

Tr.: Tracess

ND: Not Detectable

FORMAT - II B

Ambient air quality data at Nagda for the month of : July-2021

Sampling location	Month & Year	SO2 microgram/M3			NO2 microgram/M3			CS2 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	G.M.	n	A.M.	S.D.	Peak	G.M.				
EAST Fabrication Shop	July-2021	12	17.8	2.2	21	12	16.4	2.3	20	12	13.4	1.6	17	12	17.1	1.6	20	6	47	1.0	48	46	6	26	0.8	27	26
WEST Vishnu Bhawan	July-2021	12	14.2	2.4	18	12	15.5	2.1	19	12	12.8	2.8	18	12	12.2	1.8	15	6	42	1.3	44	42	6	22	1.3	24	22
NORTH Labour-Club	July-2021	12	11.4	1.8	15	12	10.9	1.1	13	12	11.6	1	14	12	10.4	1.1	12	6	41	1.0	42	40	6	21	1.0	22	20
SOUTH Daily	July-2021	12	16.1	1.8	20	12	16.0	2.2	20	12	15.8	2.1	20	12	15.2	2.0	19	6	46	1.4	48	46	6	26	0.7	27	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 µg/m3 and H2S = 150 µg/m3

FORMAT - II A

Ambient air quality data at Nagda for the month of : August-2021

All results expressed as Microgram/M3

Direction	Date	6 - 10			10 - 14			14 - 18			18 - 22			22 - 02			02 - 06			4HS NO2	Max CS2	24HS Avg CS2			8 HS Avg PM10	8 HS Avg PM2.5		
		SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2			CS2	H2S	SO2			NO2	CS2
EAST	06.08.2021	20	15	14	17	21	16	13	20	19	17	16	14	17	18	15	21	19	17	20	18.8	16.8	14.8	43	44	46	27	26
	15.08.2021	17	13	15	18	17	14	15	16	16	19	14	14	17	15.7	12	17	17	16	19	15.7	15.2	14.2	45	46	46	27	25
	06.08.2021	15	12	10	13	14	14	10	11	13	17	12	11	15	9	15	15	17	12	15	13.7	13.8	10.0	40	42	41	23	22
	15.08.2021	16	14	13	10	14	16	15	17	18	15	17	12	18	13	11	18	17	17	13	15.8	15.3	14.3	41	40	42	21	22
NORTH	07.08.2021	10	10	10	11	12	10	13	12	10	9	16	11	16	11	13	12	13	12	12	12.7	10.8	11.3	41	40	40	19	21
	17.08.2021	9	11	11	10	10	10	12	11	11	9	11	14	14	12	12	12	14	14	12	10.8	11.3	11.7	40	40	41	21	20
	27.08.2021	9	14	12	12	12	15	12	13	10	12	13	12	10	13	10	13	15	12	13	11.2	13.2	11.3	41	40	40	22	21
	07.08.2021	16	20	15	18	15	14	16	17	15	19	14	17	14	17	14	17	20	19	19	15.7	16.5	16.3	45	46	45	26	27
	17.08.2021	18	19	17	17	20	21	17	23	19	20	18	21	18	21	19	21	21	20	23	18.8	18.7	17.7	48	48	47	26	25
	27.08.2021	19	15	14	14	18	12	18	16	16	14	15	20	18	14	16	20	16	19	17.7	13.5	16.7	46	47	47	28	27	
SOUTH	07.08.2021	16	20	15	18	15	14	16	17	15	19	14	17	14	17	14	17	20	19	19	15.7	16.5	16.3	45	46	45	26	25

FORMAT - II B

Ambient air quality data at Nagda for the month of : August-2021

Sampling location	Month & Year	SO2 microgram/M3			NO2 microgram/M3			CS2 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	n	A.M.	S.D. Peak	
EAST Fabrication Shop	Aug 2021	12	17.3	2.2	12	16.0	1.6	12	14.5	1.4	12	16.3	2.3	6	45	1.2	6	26	0.7	27
WEST Vishnu Bhawan	Aug 2021	12	14.8	1.7	12	14.6	1.8	12	12.2	2.6	12	11.5	1.7	6	41	0.8	6	22	1.3	24
NORTH Labour Club	Aug 2021	18	11.6	1.8	18	11.8	1.8	18	11.4	1.1	18	10.9	1.2	9	40	0.5	9	21	1.0	22
SOUTH Dairy	Aug 2021	18	17.4	1.9	18	16.2	2.9	18	16.9	1.8	18	16.7	2.8	9	47	1.1	9	26	0.9	28

A.M.=Arithmetic mean, S.D.=Standard Deviation, G.M.=Geometric mean, n=number of observation.
 ND = Not Detected
 * Norms for SO2, NO2 & SEM as per NAAQM Standard and Permissible limit for CS2 = 100 µg/m³ and H2S = 150 µg/m³

FORMAT - II A

**Ambient air quality data at Nagda for the month of : September-2021
All results expressed as Microgram/M3**

Dier- ction	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	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	SO2	NO2	CS2	H2S	6-14	14-22	22-06	6-14	14-22	22-06							
EAST	06.09.2021	16	17	19	18	19	17	19	16	17	21	18	19	18	21	20	19	21	18.0	18.2	17.0	18.2	46	48	45	48	45	25	28	27								
	20.09.2021	15	12	14	17	15	17	13	15	18	14	16	15	17	16	13	15	14	15	14	14	14	11	18	17	15	17	15.5	14.8	14.0	14.7	45	44	26	27	25		
WEST	06.09.2021	16	15	10	14	14	12	12	13	14	10	16	18	12	13	11	17	14	13	15	16	11	12	16	18	14	14	14.2	15.3	12.0	12.3	43	41	42	22	19	20	21
	20.09.2021	15	15	11	11	14	15	10	16	14	18	12	15	16	17	17	15	10	16	13	13	12	17	17	14	15	13	15.5	15.0	14.3	11.0	40	41	42	21	20	21	
NORTH	08.09.2021	12	14	13	10	11	15	12	11	10	12	10	12	9	10	14	12	13	10	10	11	13	12	14	13	14	11.7	12.7	11.7	11.7	37	39	38	20	19	21	21	
	22.09.2021	10	10	12	12	11	9	10	11	10	10	10	10	11	10	13	12	13	12	11	11	12	12	14	13	11.0	10.7	12.0	11.8	12.0	11.8	41	40	41	22	21	20	20
SOUTH	08.09.2021	20	18	17	19	19	21	22	18	18	16	18	17	19	17	19	21	20	20	15	15	18	20	21	20	21	17.8	18.7	19.3	18.8	47	44	46	28	26	28	28	
	22.09.2021	19	20	20	22	18	17	19	16	15	19	18	17	20	21	19	18	17	20	17	16	20	21	20	21	18.7	17.8	17.5	19.8	45	46	48	27	25	26	26		

BDL : Below detectable Limit

Tr. : Tracess

ND: Not Detectable

FORMAT - II B

Ambient air quality data at Nagda for the month of : September-2021

Sampling location	Month & Year	SO2 microgram/M3			NO2 microgram/M3			CS2 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	n	A.M.	S.D. Peak	G.M.							
EAST Fabrication Shop	September-2021	12	16.8	2.0	21	12	16.5	2.3	20	12	15.5	1.8	19	12	16.4	2.6	21	6	46	1.3	48	45	6	26	1.1	28	26
WEST Vishnu Bhawan	September-2021	12	14.8	1.6	17	12	15.2	1.7	18	12	13.2	2.1	18	12	11.7	1.2	14	6	42	1.0	43	41	6	21	1.0	22	20
NORTH Labour-Club	September-2021	12	11.3	1.2	14	12	11.7	1.7	15	12	12.3	1	14	12	11.8	1.3	14	6	39	1.5	41	39	6	21	1.0	22	20
SOUTH Dairy	September-2021	12	18.3	1.7	21	12	18.3	1.4	21	12	18.4	2.0	22	12	19.3	1.4	22	6	46	1.3	48	46	6	27	1.1	28	27

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 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 Plant 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-21 – September-21 – 0.004 MWh FY 2020-2021 – 2.7 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>



Signature of Project in Charge