



Date: 26.04.2023

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Ref No.: GRCD/GPCB/2023-24/04

To,

Ministry of Environment, Forest and Climate Change
Aaranya Bhavan, Gandhingar.

Sub: Statutory compliance report along-with implementation report of "fly ash notification dated: 31.12.2021 & 30.12.2022" for the period of 1st April, 2022 to 31st March-2023.

Respected Sir,

This has reference to above subject matter, we are submitting **Statutory compliance report along-with implementation report** of "fly ash notification dated: **31.12.2021 & 30.12.2022**" for the period of **1st April, 2022** to **31st March-2023**.

Hope the same is in order.

Yours faithfully,

For M/s. Grasim Industries Limited (Chemical Div)

Authorized Signatory

CC to:

1. **Unit Head- Bharuch- GPCB, Gandhinagar – 382010, Gujarat.**
2. **Regional Officer - GPCB, GIDC Estate, Bharuch.**
3. **The Regional director, CPCB, Parivesh Bhawan, Aatmajyoti Ashram Rd, Opp. VMC Ward Office No. 10, Subhanpura, Vadodara, Gujarat 390023.**

Grasim Industries Limited Unit : Chemical Division

Correspondence Plant & Address :
Plant : Plot No. 1, G.I.D.C. Estate,
Village : Vilayat, Tahsil : Vagra,
Dist. Bharuch 392 012 (Gujarat), India.


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FLY ASH ANNUAL COMPLIANCE REPORT 2022-2023 (1st April, 2022 to 31st March, 2023)

Sr. No.	Details	Compliance
1	Name of Power Plant	Captive Power Plant
2	Name of the Company	M/s. Grasim Industries Limited (Chemical Division)
3	District	Bharuch
4	State	Gujarat
5	Postal Address for communication	Plot No. 1, GIDC Industrial Estate, Tal: Vagra, Bharuch, Gujarat
6	E-Mail	Vikaskumar.valand@adityabirla.com
7	Power Plant installed capacity (MW)	96 MW
8	Plant Load Factor (PLF)	78.1%
9	No. of units generated (MWh)	Total (April,22-March,23): 606482.274 MWH
10	Total area under power plant (ha) (including area under ash ponds)	~50 acres
11	Quantity of coal consumption during reporting period (MT/Annum)	Total (April,22-March,23): 592579.9095 MT/Annum
12	Average ash content in percentage (%)	10-16%
13	Quantity of current ash generation during reporting period (MT/Annum): Fly Ash (MT/Annum) Bottom Ash (MT/Annum)	Fly Ash (MT/Annum): 55332.705 Bottom Ash (MT/Annum): 9764.595
14	Capacity of dry fly ash storage silos(s) (MT/Annum)	600 MT (2 Silo of 300 MT each)
15	<p>Details of utilisation of current ash generated during reporting period</p> <p>(a) Total quantity of current ash utilised (MTPA) during reporting period</p> <p>(b) Quantity of fly ash utilised (MTPA)</p> <ol style="list-style-type: none"> i. Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels) ii. Cement manufacturing iii. Ready mix concrete iv. Ash and Geo polymer based construction material v. Manufacturing of sintered or cold bonded ash aggregate vi. Construction of roads, road and fly over embankment vii. Construction of dams viii. Filling up of low lying area ix. Filling of mine voids x. Use in overburden dumps xi. Agriculture xii. Construction of shoreline protection structures in coastal districts xiii. Export of ash to other countries xiv. Others (please specify) <p>(c) Quantity of bottom ash utilised (MTPA):</p> <ol style="list-style-type: none"> i. Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels) ii. Cement manufacturing 	<p>(a) Total quantity of current ash utilised (MTPA) during reporting period: 65084.1 MTPA</p> <p>(b) Quantity of ash utilised (MTPA)</p> <ol style="list-style-type: none"> i. Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels): 26999.2 MTPA ii. Cement manufacturing: 36614.9 MTPA iii. Construction of roads, road and fly over embankment: 1470 MTPA

	<ul style="list-style-type: none"> iii. Ready mix concrete iv. Ash and Geo-polymer based construction material v. Manufacturing of sintered or cold bonded ash aggregate vi. Construction of roads, road and flyover embankment vii. Construction of dams viii. Filling up of low lying area ix. Filling of mine voids x. Use in overburden dumps xi. Agriculture xii. Construction of shoreline protection structures in coastal districts xiii. Export of ash to other countries xiv. Others (please specify) <p>Total quantity of current ash unutilised (MTPA) during reporting period</p>	
16	Percentage utilisation of current ash generated during reporting period (%)	100%
17	<p>Details of disposal of ash in ash ponds</p> <ul style="list-style-type: none"> (a) Total quantity of ash disposed in ash pond(s) (MT) as on 31st March (excluding reporting period) (b) Quantity of ash disposed in as pond(s) during reporting period (MT) (c) Total quantity of water consumption for slurry discharge into ash ponds during reporting period (m³) (d) Total number of ash ponds: <ul style="list-style-type: none"> i. Active ii. Exhausted (yet to be reclaimed) iii. Reclaimed (e) Total area under ash ponds (ha) 	Not Available
18	<p>Individual ash pond details Ash pond-1,2, etc (please provide below mentioned details separately, if number of ash ponds is more than one)</p> <ul style="list-style-type: none"> (a) Status: Under construction or Active or Exhausted or Reclaimed (b) Date of start of ash disposal in ash pond (DD/MM/YYYY or MMYYYY) (c) Date of stoppage of ash disposal in ash pond after completing its capacity (DD/MM/YYYY or MM/YYYY) (Not applicable for active ash ponds) (d) area (hectares) (e) dyke height (m) (f) volume (m³): (g) quantity of ash disposed as on 31st March (Metric Tons): (h) available volume in percentage (per cent) and quantity of ash can be further disposed (Metric Tons): (i) expected life of ash pond (number of years and months): (j) co-ordinates (Lat and Long) (please specify minimum 4 co-ordinates) 	Not Available

	<p>(k) type of lining carried in ash pond: HDPE lining or LDPE lining or clay lining or No lining</p> <p>(l) mode of disposal: Dry disposal or wet slurry (in case of wet slurry please specify whether HCSD or MCSD or LCSD)</p> <p>(m) Ratio of ash: water in slurry mix (1:___):</p> <p>(n) Ash water recycling system (AWRS) installed and functioning: Yes or No</p> <p>(o) Quantity of wastewater from ash pond discharged into land or water body (m3):</p> <p>(p) Last date when the dyke stability study was conducted and name of the organisation who conducted the study:</p> <p>(q) Last date when the audit was conducted and name of the organisation who conducted the audit:</p>	Not Available		
19	<p>Quantity of legacy ash utilised (MTPA):</p> <p>(a) Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels):</p> <p>(b) Cement manufacturing:</p> <p>(c) Ready mix concrete:</p> <p>(d) Ash and Geo-polymer based construction material:</p> <p>(e) Manufacturing of sintered or cold bonded ash aggregate:</p> <p>(f) Construction of roads, road and flyover embankment:</p> <p>(g) Construction of dams:</p> <p>(h) Filling up of low lying area:</p> <p>(i) Filling of mine voids:</p> <p>(j) Use in overburden dumps:</p> <p>(k) Agriculture:</p> <p>(l) Construction of shoreline protection structures in coastal districts;</p> <p>(m) Export of ash to other countries:</p> <p>(n) Others (please specify):</p>	Not Available		
20	Summary			
	Details	Quantity generated (MTP)	Quantity utilised (MTP) and (%)	Balance Quantity (MTP)
	Current ash during reporting period	65097.3	65084.1 (99.97%)	46.09
	Legacy Ash	-	-	-
	Total	65097.3	65084.1 (99.97%)	46.09
21	<p>Any other information: Soft copy of the annual compliance report, and shape files of power plant and ash ponds may be e-mailed to:- moefccoalash@gov.in</p>	Annual compliance report copy is shared on dated 28/04/2023 through email to moefccoalash@gov.in.		
22	Signature of Authorised Signatory			

GRASIM INDUSTRIES LIMITED
Chemical Division Vilayat
Address; Plot No. 1, GIDC, Vilayat, Tal.- Vagra, Dist.-Bharuch, Gujarat
 Fly Ash Generation and Utilization Report FY-2023 (Apr-22 to Mar-23)
 Compliance report of 96 MW CPP

Months	Opening balance (MT)	Generation (MT)	Fly Ash Utilization (MT)				Closing Stock (MT)
			Bricks/Road Manufacturers	Cement Manufactures	Reclamation, Road (Project)	Total Utilization	
Apr-22	32.84	6754.00	2536.66	4126.61	0.00	6663.27	123.57
May-22	123.57	7725.00	3374.00	4225.00	0.00	7599.00	249.57
Jun-22	249.57	3002.00	1532.90	1496.70	0.00	3029.60	221.97
Jul-22	221.97	5594.00	2335.10	3043.40	350.00	5728.50	87.47
Aug-22	87.47	4221.00	2071.30	2076.70	0.00	4148.00	160.47
Sep-22	160.47	3779.00	2176.30	1792.00	0.00	3968.30	28.83
Oct-22	28.83	5144.00	3480.80	1792.00	0.00	5272.80	99.97
Nov-22	99.97	4089.00	2047.85	2219.23	0.00	4267.08	25.50
Dec-22	25.50	3970.00	1265.68	2622.70	0.00	3888.38	107.12
Jan-23	107.12	6236.00	2517.78	2947.09	400.00	5864.87	117.05
Feb-23	117.05	7512.00	1423.63	5407.00	600.00	7430.63	198.42
Mar-23	198.42	7071.30	2237.21	4866.42	120.00	7223.63	46.09
Total		65097.3	26999.2	36614.9	1470.0	65084.1	

Note:

Closing balance of fly ash is stored in Silo.

Fly ash used in-house for Reclaiming & Compaction in our construction work.

Details of Disposal/ Use:

Brick / Road Manufacturing	26999.2 MT/A
Cement Manufacturing	36614.9 MT/A
Reclamation, Road (Project)	1470.00 MT/A
Total Fly Ash disposed	65084.1 MT/A
Balance (in Silo)	46.09 MT

*Implementation report for fly ash notification dated: 31.12.2021 &
30.12.2022*

Sr. No.	Points	Implementation details
A. Responsibilities of thermal power plants to dispose fly ash and bottom ash.—		
1.	Every coal or lignite based thermal power plant (including captive or co-generating stations or both) shall be primarily responsible to ensure 100 per cent utilisation of ash (fly ash, and bottom ash) generated by it in an eco-friendly manner as given in sub-paragraph (2);	Being complied Generated quantity of fly ash and bottom ash is being sent to Cement & Fly ash brick Manufacturer.
2.	The ash generated from coal or lignite based thermal power plants shall be utilised only for the following eco-friendly purposes, namely:- (i) Fly ash based products viz. bricks, blocks, tiles, fibre cement sheets, pipes, boards, panels; (ii) Cement manufacturing, ready mix concrete; (iii) Construction of road and fly over embankment, Ash and Geo-polymer based construction material; (iv) Construction of dam; (v) Filling up of low lying area; (vi) Filling of mine voids; (vii) Manufacturing of sintered or cold bonded ash aggregate; (viii) Agriculture in a controlled manner based on soil testing; (ix) Construction of shoreline protection structures in coastal districts; 14 THE GAZETTE OF INDIA : EXTRAORDINARY [PART II—SEC. 3(ii)] (x) Export of ash to other countries; (xi) Any other eco-friendly purpose as notified from time to time.	Being complied Generated quantity of fly ash and bottom ash is being sent to Cement & Fly ash brick Manufacturer.
3.	A committee shall be constituted under the chairmanship of Chairman, Central Pollution Control Board (CPCB) and having representatives from Ministry of Environment, Forest and Climate Change (MoEFCC), Ministry of Power, Ministry of Mines, Ministry of Coal, Ministry of Road Transport and Highways, Department of Agricultural Research and Education, Institute of Road Congress, National Council for Cement and Building Materials, to examine and review and recommend the eco-friendly ways of utilisation of ash and make inclusion or exclusion or modification in the list of such ways as mentioned in Subparagraph (2) based on technological developments and requests received from stakeholders. The committee may invite State Pollution Control Board or Pollution Control Committee, operators of thermal power plants and mines, cement plants and other stakeholders as and when required for this purpose. Based on the recommendations of the Committee, Ministry of Environment, Forest and Climate Change (MoEFCC) may publish such eco-friendly purpose.	Noted

*Implementation report for fly ash notification dated: 31.12.2021 &
30.12.2022*

	<p>designated with clear demarcation along with coordinates, and shall inform to Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) by 31st March, 2023:</p> <p>Provided further that one ash pond or dyke shall be permitted in case of new thermal power plants or expansion of existing thermal power plants commissioned on or after 31st December, 2021, which shall inform the details of demarcation along with coordinates to Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) within 3 months from the date of commissioning of thermal power plant or by 31st March, 2023, whichever is later:</p> <p>Provided also that coal and lignite based thermal power plants shall not be allowed to further establish or designate any new operational ash pond or dyke: Provided also that specification of 0.1 hectare per Mega Watt (MW) of an operational ash pond or dyke shall not be applicable for the thermal power plants commissioned before 03rd November, 2009.”.</p>	
7.	<p>Every coal or lignite based thermal power plant shall ensure that loading, unloading, transport, storage and disposal of ash is done in an environmentally sound manner and that all precautions to prevent air and water pollution are taken and status in this regard shall be reported to the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) in Annexure attached to this notification.</p>	Being complied
8.	<p>Every coal or lignite based thermal power plant shall install dedicated silos for storage of dry fly ash silos for at least sixteen hours of ash based on installed capacity and it shall be reported upon to the concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) in the Annexure and shall be inspected by Central Pollution Control Board (CPCB) or State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) from time to time.</p>	Complied Unit has installed dedicated silo for storage of generated quantity of ash.
9.	<p>Every coal or lignite based thermal power plant (including captive or co-generating stations or both) shall provide real time data on daily basis of availability of ash with Thermal Power Plant (TPP), by providing link to Central Pollution Control Board's web portal or mobile phone App for the benefit of actual user(s).</p>	Noted Web-link for real time data connectivity is developed and circulate publically recently. We will explore possibility for real-time uploading data.
10.	<p>Statutory obligation of 100 per cent utilisation of ash shall be treated as a change in law, wherever applicable.</p>	Noted