

PCB ID - 36507

Date:29.04.2024

To,

Mr. Yogesh Kumar (IRO), Ministry of Environment, Forest and Climate Change Aaranya Bhavan, Gandhinagar.

Sub: Statutory compliance report along-with implementation report of "Fly ash notification dated: 31.12.2021 & 03.01.2022 & 01.01.2024 for the period of 1st April, 2023 to 31st March-2024.

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 & 03.01.2022 & 01.01.2024" for the period of 1st April, 2023 to 31st March-2024.

Hope the same is in order.

Yours Sincerely,
For Grasim Industries Limited
(Grasim Cellulosic Division; Vilayat)

Vatsal Jani

LH - Technical Services

(Auth. Signatory)

CC to:

- 1. M.R. Macwana, Unit Head- Bharuch- GPCB, Gandhinagar 382010, Gujarat.
- 2. K.N. Vaghamshi, Regional Officer Bharuch GPCB, Phase -II GIDC Bharuch.
- 3. The Regional director, CPCB, Parivesh Bhawan, Aatmajyoti Ashram Rd, Opp. VMC Ward Office No. 10, Subhan Pura, Vadodara, Gujarat 390023.

Grasim Industries Limited (Unit:Grasim Cellulosic Division)

FLY ASH ANNUAL COMPLIANCE REPORT 2023-2024 (1st April, 2023 to 31st March, 2024)

Sr. No.	Details	Compliance
1	Name of Power Plant	Captive Power Plant, Grasim Cellulosic Division, Vilayat
2	Name of the Company	M/s. Grasim Industries Limited (Cellulosic 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	pramod.rkumar@adityabirla.com
7	Power Plant installed capacity (MW)	30 MW
8	Plant Load Factor (PLF)	94.8%
9	No. of units generated (MWh)	Total (April'23-March'24): 249833.15 MWH
10	Total area under power plant (ha) (including area under ash ponds)	~ 17 Acres
11	Quantity of coal consumption during reporting period (MT/Annum)	Total (April,23-March,24): 266469 MT/Annum
12	Average ash content in percentage (%)	14.30 %
13	Quantity of current ash generation during reporting period (MT/Annum): Fly Ash (MT/Annum) Bottom Ash (MT/Annum)	Fly Ash (MT/Annum): 33879.85 Bottom Ash (MT/Annum): 4231.66
14	Capacity of dry fly ash storage silos(s) (MT/Annum)	2 Closed Silos of 1062 MT & 600 MT capacity.
15	Details of utilisation of current ash generated during reporting period (a) Total quantity of current ash utilised (MTPA) during reporting period (b) Quantity of fly ash utilised (MTPA) 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) (c) Quantity of bottom ash utilised (MTPA): i. Fly ash-based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels)	(a) Total quantity of current ash utilised (MTPA) during reporting period: 38125.21 MTPA (b) Quantity of ash utilised (MTPA) i. Fly ash-based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels): 4231.66 MTPA ii. Cement manufacturing: 32693.55 MTPA Nil Nil Nil Nil Nil Nil Nil Ni

	III Danit sale	***
	iii. Ready mlx concrete iv. Ash and Geo-polymer-based	Nil
× .	and dee polymer based	Nil
	construction material	
	v. Manufacturing of sintered or cold	Nil
	bonded ash aggregate	INII
	vi. Construction of roads, road and flyover	
	embankment	Nil
	vii. Construction of dams	
	viii. Filling up of low-lying area	AIII
	ix. Filling of mine voids	NIL
	x. Use in overburden dumps	Nil
	xi. Agriculture	Nil
	xii. Construction of shoreline protection	NIL
	structures in coastal districts	Nil
	xiii. Export of ash to other countries	
	xiv. Others (please specify)	Nil
	others (please specify)	Nil
	Total quantity of current ask and the distant	
	Total quantity of current ash unutilised (MTPA)	
	during reporting period	
16	Percentage utilisation of current ash generated	100%
	during reporting period (%)	10070
	Details of disposal of ash in ash ponds	
	(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	
17	clume discharge integral	Nil
	slurry discharge into ash ponds during	
	reporting period (m³)	
	(d) Total number of ash ponds:	
	i. Active	
75	ii. Exhausted (yet to be reclaimed)	
	iii. Reclaimed	
	(e) Total area under ash ponds (ha)	
	Individual ash pond details	
	Ash pond-1,2, etc (please provide below	
	mentioned details separately, if number of ash	
	ponds is more than one)	
	(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)	
18	(d) area (hectares)	NA NA
	(e) dyke height (m)	
	(f) volume (m ₃):	
	(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)	
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	LDPE lining or clay lini (I) mode of disposal: Dry case of wet slurry ple or MCSD or LCSD) (m) Ratio of ash: water in (n) Ash water recycling sy functioning: Yes or No (O) Quantity of wastewat discharged into land of conducted and name conducted the study: (q) Last date when the an name of the organisa audit: Quantity of legacy ash (a) Fly ash-based produc or fibre cement sheer	disposal or wet slurry (in ase specify whether HCSD slurry mix (1:): ystem (AWRS) installed and or water body (m3): yke stability study was of the organisation who udit was conducted and tion who conducted the	No legacy fly ash is be Unit is in-compliance utilization.	
19	material:	e: ner-based construction sintered or cold bonded ads, road and flyover ms: ing area: ds: dumps: oreline protection al districts; ther countries:		
	Summary Details	Quantity generated		Balance
20	Current ash during	(MTP) 38111.51	(MTP) and (%) 38125.21	Quantity (MTP) 0.00
	reporting period			0.00
	Legacy Ash Total	00 38111.51	00 38125.21	0.00
	Any other information:	STATE STATE OF THE		
21	Soft copy of the annual compliance report, and shape files of power plant and ash ponds may be e-mailed to:- moefcccoalash@gov.in		Mail communication of shared annual compliance report is attached as Annexure – 1 .	
22	Signature of Authorise	d Signatory	Vatsal Jani LH - Technical Service (Auth. Signatory) For Grasim Cellulosic	(a)

Month	Opening balance	Plant # (30 MW) Fly		Fly Ash Utiliza	tion (MT)		Closing
	(MT)	Ash generation	Bricks/Road Manufacturers	Cement Manufacturers	Reclamation, Road (Project)	Total Utilization	Stock (MT)
Apr-23	13.70	2432.00	859.05	1553.43	0.00	2412.48	33.22
May-23	33.22	3000.00	744.83	2253.74	0.00	2998.57	34.65
Jun-23	34.60	1161.00	127.81	1064.09	0.00	1191.90	3.70
Jul-23	3.70	2231.00	20.96	918.48	1200.00	2139.44	95.26
Aug-23	95.31	3089.00	338.18	2771.03	0.00	3109.21	75.10
Sep-23	75.10	2047.00	169.57	1877.86	0.00	2047.43	74.67
Oct-23	74.67	3551.00	711.99	2838.75	0.00	3550.74	74.93
Nov-23	74.93	3625.28	311.31	3387.97	0.00	3699.28	0.93
Dec-23	0.93	3265.54	242.87	3023.60	0.00	3266.47	0.00
Jan-24	0.00	5999.24	321.29	5677.95	0.00	5999.24	0.00
Feb-24	0.00	4315.14	210.50	4104.64	0.00	4315.14	0.00
Mar-24	0.00	3395.31	173.30	3222.01	0.00	3395.31	0.00
Total	1 * 1111	38111.51	4231.66	32693.55	1200.00	38125.21	0.00

Note:

Closing balance of fly ash is nil in Silo.

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

Details of Disposal/ Use:

Brick / Road Manufacturing

5431.66 MT

Cement Manufacturing

32693.55 MT

Compaction & Reclaiming

Nil

Total Fly Ash disposed

38125.21 MT

Balance (in Silo)

0.00 MT

SI No.	Points	Implementation details
A. R	lesponsibilities 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 subparagraph (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	Noted.

	Committee anamate City	
	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.	
	Every coal or lignite based thermal power plant shall	Being complied
	be responsible to utilise 100 per cent ash (fly ash and	Unit is engaged in 100% utilization of generated
	bottom ash) generated during that year, however, in	quantity of fly ash.
4.	no case shall utilisation fall below 80 per cent in any	quantity of the dom
	year, and the thermal power plant shall achieve	
	average ash utilisation of 100 per cent in a three years	
	cycle	
	The unutilised accumulated ash i.e. legacy ash, which	Noted.
	is stored before 1st April, 2022, shall be utilised	No legacy fly ash is being stored by unit. Unit is
	progressively by the thermal power plants in such a	in-compliance with 100% fly ash utilization.
	manner that the utilization of legacy ash shall be	in-compliance with 100% by ash utilization.
	completed fully within ten years from the date of	
	publication of this notification and this will be over and	
	above the utilisation targets prescribed for ash	
	generation through current operations of that	
	particular year.	
	particular year.	
	Provided further that the legacy ash utilisation shall	
5.	not be required where ash pond or dyke has stabilised	
	and the reclamation has taken place with greenbelt or	
~	plantation and the concerned State Pollution Control	
	Board shall certify in this regard. Stabilisation and	
	reclamation of an ash pond or dyke including	
	certification by State Pollution Control Board (SPCB) or	
	Pollution Control Committee (PCC) shall be carried out	
	within a year from the date of publication of this	
	notification. The ash remaining in all other ash ponds	
	or dykes shall be utilised in progressive manner as per	
	the mentioned timelines in notification.	
	Any new as well as operational thermal power plant	Noted
	may be permitted operational ash pond or dyke for	
	temporary storage of ash within an area of 0.1 hectare	
	per Mega Watt (MW). Technical specifications of	
	operational as well as stabilized and reclaimed ash	
	ponds or dykes shall be as per the guidelines of the	
•	Central Pollution Control Board (CPCB) made in	
6.	consultation with the Central Electricity Authority	
	(CEA) and these guidelines shall also lay down a	
	procedure for annual certification of the operational as	
	well as stabilized and reclaimed ash pond or dyke on	
	its safety, environment pollution, available volume,	
	mode of disposal, water consumption or conservation	
	in disposal, ash water recycling and green belt, etc.	

	and shall be put in place within three months from the	
	date of publication of this notification:	
	Provided that up to two operational ash ponds or	
	dykes for thermal power plants commissioned before	
	31st December, 2021, having installed capacity less	
	than or equal to 1600 MW, and up to four operational	
	ash ponds or dykes for thermal power plants having	
	installed capacity more than 1600 MW, having	
	multiple lagoons, within the specified area from the	
	existing ash ponds or dykes, may be 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:	
	Provided further that one ash pond or dyke shall be	eq
	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:	
	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.".	
	Every coal or lignite based thermal power plant shall	Being complied.
	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	
7.	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.	
	Every coal or lignite based thermal power plant shall	Complied
	install dedicated silos for storage of dry fly ash silos for	Unit has installed dedicated silo for storage of
	at least sixteen hours of ash based on installed	generated quantity of ash.
8.	capacity and it shall be reported upon to the	
	concerned State Pollution Control Board (SPCB) or	
	Pollution Control Committee (PCC) in the Annexure	

L	Board (CPCB) or State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) from time to time.	
9.	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).	Web-link for real time data connectivity is developed and circulate publicly recently. We will explore possibility for real-time uploading data.
10.	Statutory obligation of 100 per cent utilisation of ash shall be treated as a change in law, wherever applicable.	Noted
В.	For the purpose of utilisation of ash, the subsequent	sub-paras shall apply. —
1.	All agencies (Government, Semi-government and Private) engaged in construction activities such as road laying, road and flyover embankments, shoreline protection structures in coastal districts and dams within a radius of 300 kms from the lignite or coal based thermal power plants shall mandatorily utilise ash in these activities:	Noted
	"Provided that the coal or lignite based thermal power plant has given a notice to such agencies for making available ash to such agencies for which cost of ash and transportation shall be borne by the coal or lignite based thermal power plant."	Noted and shall be comply
3.	(ii) Provided that such thermal power stations shall facilitate the availability of required quantity of ash by delivering ash free of cost and bearing the cost of transportation or cost or transportation arrangement decided on mutually agreed terms and mixing of ash with overburden in mine voids and dumps shall be applicable for the overburden generated from the date of publication of this notification and the utilisation of ash in the said activities shall be carried out in accordance with guidelines laid down by the Central Pollution Control Board, Director General of Mines Safety and Indian Bureau of Mines.	
5.	(ii) Thermal power plants or mines shall not wait for disposal of ash till the identification is done by the above mentioned committee, to meet the utilisation targets mandated as above. Being complied Unit is engaged in 100% utilization of general quantity of fly ash.	
6.	Filling of low-lying areas with ash shall be carried out with prior permission of the State Pollution Control Board or Pollution Control Committee for approved projects, and in accordance with guidelines laid down by Central Pollution Control Board (CPCB) and the	Noted. Unit will take prior permission in case of filling low lying area in future.

	State Pollution Control Board or Pollution Control Committee (PCC) shall publish approved sites, location, area and permitted quantity annually on its website.	
D.	Procedure for supply of ash or ash-based products —	, 06 s.
	"(1) The owner of thermal power plants shall give a written notice to persons or agencies who are required to utilise ash under sub-paragraph (1) & (3) of paragraph B for offering the supply of ash free of cost and bearing cost of transportation, with a copy to concerned State Pollution Control Board.	Noted & shall be comply
1.	(1A) The manufacturers of ash bricks or tiles or sintered ash aggregate or other ash-based products shall give a written notice to persons or agencies who are required to utilise ash-based products under subparagraph (8) of paragraph B for offering for sale of such products with a copy to concerned State Pollution Control Board."	
2.	Persons or user agencies who have been served notices by owner of thermal power plants, if they have already tied up with other agencies for the purpose of utilisation of ash, shall inform the thermal power plant accordingly, and if they cannot use any ash or use reduced quantity.	Noted
3.	Persons or user agencies who have been served notice by manufacturers of ash bricks or tiles or sintered ash aggregate or other ash-based products, if they have already tied up with other agencies for the purpose of utilisation of ash-based products, shall inform the manufacturer of ash bricks or tiles or sintered ash aggregate or other ash-based products, accordingly, and if they cannot use ash-based products, or may use reduced quantity."	
4.	The coal or lignite based thermal power plants, while utilising ash under this notification shall reserve certain percentage of ash for supply to all micro and small enterprises engaged in ash-based product manufacturing namely, bricks, blocks, tiles, sintered or cold bonded ash aggregates, fibre cement sheets, pipes, boards, panels for sale at concessional price or through limited auction in accordance with the guidelines issued by the Central Government in the Ministry of Power."	Complied
E.	Enforcement, Monitoring, Audit and Reporting. —	
2.	(i) Thermal power plant shall upload monthly information regarding ash generation and utilization by 5 th of the next month on the web portal. Annual	Noted & Complied

GRASIM CELLULOSIC DIVISION -VILAYAT BHARUCH

Implementation report (for the period of 1st April to 31st march) providing information about the compliance of provisions in this notification shall be submitted by 30th day of April, every year to the CPCB, concerned SPCB, CEA and concerned integrated regional office of MOEFCC by the coal or lignite based thermal power plants.

Ash generation and utilization data is being uploaded on company's web portal as well as on Ash Availability and Utilization Portal developed by CPCB on monthly basis.

(ii) All other user agencies shall submit consumption or utilisation or disposal of ash and use of ash-based products as mandated in this notification in the compliance report of Environmental Clearance (EC) issued by Ministry of Environment, Forest and Climate Change or State Level Environment Impact Assessment Authority (SEIAA) or Consent to Operate (CTO) issued by State Pollution Control Board (SPCB) or Pollution Control Committee (PCC), whichever is applicable.

5.

Implementation report for the FY 2023-24 is being submitted here.

The compliance audit for ash disposal by the thermal power plants and the user agency shall be conducted by auditors, authorised by Central Pollution Control Board (CPCB) and audit report shall be submitted to Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) by 30th November every year. Central Pollution Control Board (CPCB) and concerned State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall initiate action against non-compliant thermal power plants within fifteen days of receipt of audit report.

Complied.

The Fly Ash Utilization Audit for FY 23-24 was conducted by IIT BHU in accordance with CPCB guidelines and audit report has been submitted to CPCB and SPCB.