JSW Energy (Barmer) Limited
Vill. & Post : Bhadresh, Post Box
No.30, Distt : Barmer-344001 (Raj.)
CIN: U31102MH1996PLC185098
Phone: +91 2982 229100
Website : www.jsw.in

Ref: JSWE(B)L/ENV/2025-26/011 **Date: 21.06.2025**

To,

Member Secretary
Rajasthan State Pollution Control Board
4-Institutional Area, Jhalana Doongari,
Jaipur - 302004

Sub: Environmental Statement 2024 – 2025. **UNIT ID – 5276**

Dear Sir,

We herewith enclose duly filled Form-V of Environmental statement of JSWE(B)L for the financial year 2024 - 2025.

Please acknowledge the same.

Thanking You,
Your Faithfully

For JSW Energy (Barmer) Ltd.

Sharad Chandra Totla
General Manager – Operation & Maintenance

Enclosure

Form – V
Annexure I CEMS Data for Eight Units
Annexure II Water Utilization Data
Annexure III Effluent Water Quality
Annexure IV Ash Management Data
Annexure V Form-4 of Haz. Waste Management
Annexure VI Characterization of solid waste **– Fly Ash & Bed Ash**

CC. Regional Officer, RSPCB - Balotara

FORM - V
(See Rule 14)

From:

Sharad Totla
General Manager (O & M),
JSW Energy (Barmer) Limited
Village Bhadresh
Tehsil-Barmer
Dist. Barmer – 344001

To:

Environment Engineer
Rajasthan State Pollution Control Board, 4,
Institutional Area",
Jhalan Dungari,
Jaipur, Rajasthan-302 004

Environmental Statement for the financial year 2024-2025

PART – A

(i)	**Name and address of the owner / occupier of the industry operation or process**	:	**VIJAY CHINTALA JSW Energy (Barmer) Limited Village- Bhadresh, Tehsil- Barmer. Dist. – Barmer-344 001**
(ii)	**Industry category – Primary – (STC Code) Secondary – (SIC Code)**	:	**8 x 135 MW (1080 MW) Lignite based Power Plant.**
(iii)	**Production capacity Units**	:	**8 x 135 MW**
(iv)	**Year of establishment**	:	**28.2.2007**
(v)	**Date of the last Environmental Statement submitted**	:	**14.06.2024**

PART – B

Water and Raw Material Consumption

(1) Water consumption M^3 / day

WaterConsumption (m^3/day)	During the current financial year (2023-24)	Duringthecurrentfinancial year (2024-25)
Process (for DM Water)	**1661**	**2050**
Cooling (From CW)	**45704**	**43597**
Domestic	**103.8**	**107**

Name of Products	Raw water consumption	
	DuringthePreviousfinancialyear (2023-24)	Duringthecurrentfinancialyear (2024-25)
Power - KL/MW	**2.45**	**2.47**

(ii) Raw material consumption

Name of raw material	***Name of products***	Consumption of raw material per unit of output	
		During the Previous financial year (2023-24)	During the current financial year (2024-25)
		(1)	(2)
Coal Cons. MT/MW	Power	**0.829**	**0.874**
Oil Cons. KL/MW		**0.000099**	**0.0001217**

a.

b. PART – C

Pollution discharged to environment / unit of output
(Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharged (mass/day)	Concentration of pollutants in discharged (mass / volume)		Percentage of variation from prescribed standards with reasons
(a) Water		**Suspended Solids**	**45.5 mg/lit**	**Within limit**
		Oil & Grease	**< 0.14 mg/lit**	
		Total Copper	**0.014 mg/lit**	
		Total Iron	**0.022 mg/lit.**	
		Free available Chlorine	**<0.19 mg/lit**	
		Zinc	**0.058 mg/lit**	
		Hexavalent Chromium	**ND**	
		Total Chromium	**ND**	

(b) Air **SPM** **SO2** **NOx**		SPM: ⇒ Unit-1 36.7 mg/Nm³ ⇒ Unit-2 36.6 mg/Nm³ ⇒ Unit-3 34.8 mg/Nm³ ⇒ Unit-4 36.2 mg/Nm³ ⇒ Unit-5 35.5 mg/Nm³ ⇒ Unit-6 38.2 mg/Nm³ ⇒ Unit-7 34.3 mg/Nm³ ⇒ Unit-8 37.4 mg/Nm³ SO2: at 6% O2 Ref. ⇒ Unit-1 430.3 mg/Nm³ ⇒ Unit-2 439.4 mg/Nm³ ⇒ Unit-3 430.4 mg/Nm³ ⇒ Unit-4 437.0 mg/Nm³ ⇒ Unit-5 435.1 mg/Nm³ ⇒ Unit-6 437.2 mg/Nm³ ⇒ Unit-7 401.1 mg/Nm³ ⇒ Unit-8 440.5 mg/Nm³ NOx: at 6% O2 Ref. ⇒ Unit-1 119.0 mg/Nm³ ⇒ Unit-2 123.9 mg/Nm³ ⇒ Unit-3 125.8 mg/Nm³ ⇒ Unit-4 119.3 mg/Nm³ ⇒ Unit-5 114.8 mg/Nm³ ⇒ Unit-6 115.9 mg/Nm³ ⇒ Unit-7 114.5 mg/Nm³ ⇒ Unit-8 126.3 mg/Nm³	Within limit

PART – D

[As specified under Hazardous Wastes (Management and Handling) Rules, 1989]

Hazardous Waste		Total Quantity (Kg.)	
		During the current financial year (2023-24)	During the current financial year (2024-25)
(a)	**From process**	4250	0.0
(i)	**Waste oil**		
(ii)	**Used Batteries (lead acid)**		
(iii)	**Waste Resin**		
(iv)	**Discarded drum**		
(b)	**From pollution control facilities**	---N. A---	---N. A---

PART – E

Solid Waste

	Total Quantity (MT.)	
	During the current financial year (2023-24)	During the current financial year (2024-25)
(a) From process	**867407**	**807620**
(b) From pollution control facilities		
(c) (1) Quantity recycled or re-utilized within the unit.	**Nil**	**Nil**
(2) Solid (Sold to cement & ash-based manufacturer units)	**872005**	**840177**
(3) Disposed (In Ash Pond)	**0.0**	**0.0**

PART – F

Please specify the characterizations (in terms of composition and quantity) of hazardous as well as solid and indicate disposal practice adopted for both these categories of wastes.

1. Characterizations of Hazardous waste: **- USED Lubricating Oil**

2. Disposal Method: **- --- N.A --- (Selling to CPCB approved used Oil recycler)**

3. Characterizations of solid waste: **- The constituents of fly ash and bottom ash generated are enclosed herewith – Annexure – I**

4. Disposal Method: **-**

   (a) Dry Ash Disposal: **- Fly ash & bed ash is collected in silos & dispose through closed container.**

   (b) **Ash utilized / disposal off as under.**

   (i) **Giving to nearby cement industries and manufacturing of ash-based products like bricks etc.**

   (ii) **Utilized in miscellaneous work like concrete, approach road, filling in low-lying area etc. in the power plant.**

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

1. **Adopted Dry Ash Disposal**

   (b) Reduce the cost of generation
   (c) Reduce consumption of water.
   (d) Appropriate utilization

2. **Using high purity lime for reduction and controlling of SO2 emission.**

3. **CFBC technology is adopted for reduction and controlling of NOx emission.**

4. **High efficiency electro static precipitators (ESP) are installed with 99.9 % efficiency.**

5. **A 122-meter-high Chimney is erected for better dispersion of emission.**

6. **Continuous emission monitors (CEMS) are installed to monitor the emission levels from stacks.**

   - **Three Continuous ambient air quality monitoring stations (CAAQMS) are installed inside the plant area to monitor the ambient air quality.**
   - **Three continuous ambient air quality monitoring station (CAAQMS) are installed our side the surrounding pant area to monitor the ambient air quality.**

6. **For reducing fugitive emission. Dust extraction systems are provided at each transfer points of coal conveyer belt, ash handling system. Bag filters are provided at strategic locations.**

7. **For reuse of waste water generated – Effluent Treatment Plant is in operation**

8. **Dust Suppression Water Spraying system at Ash Pond & Lignite area provided for fugitive emission control.**

9. **Installed sensor-based vehicle water washing auto system, every ash bulker pass though water washing auto system to eliminate possibility of fugitive dust emissions**

PART – H

Additional measure / investment proposal for environmental protection including abatement of pollution prevention ofpollution.

1) **A green belt had been developed all around the plant boundary and ash pond covering an area of more than 154 Ha to control fugitive emission and sound pollution.**

2) **Three Continuous Ambient Air Quality Monitoring Stations (CAAQMS) installed outside the plant area in the impact zone.**

3) **RCC roads are being provided at all required location within the plant to control fugitive emissions.**

For JSW Energy (Barmer) Limited.

(Sharad Chandra Totla)
GM- Operation & Maintenance

ANNEXURE-_I

Unit # 1 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-24	Average			
	Max		SHUT DOWN	
May-24	Average		SHUT DOWN	
	Max			
Jun-24	Average	403.15	166.66	38.65
	Max	512.32	261.67	44.74
Jul-24	Average	471.67	207.26	35.70
	Max	515.33	260.98	42.34
Aug-24	Average	480.78	204.68	37.70
	Max	527.38	249.73	43.94
Sep-24	Average	480.95	189.15	38.27
	Max	507.61	262.29	45.32
Oct-24	Average	433.49	213.41	30.63
	Max	496.57	259.08	37.99
Nov-24	Average	341.18	162.26	27.08
	Max	500.21	189.36	46.41
Dec-24	Average	369.73	165.03	25.12
	Max	444.59	175.87	33.47
Jan-25	Average	446.99	104.41	35.25
	Max	505.09	156.21	46.39
Feb-25	Average	477.98	125.96	26.65
	Max	503.32	143.83	36.79
Mar-25	Average	460.81	135.33	32.62
	Max	510.15	155.45	41.19

ANNEXURE-_I

Unit # 2 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-24	Average	386.85	161.34	35.91
	Max	438.54	188.46	38.93
May-24	Average	405.64	152.65	35.45
	Max	447.14	185.15	41.56
Jun-24	Average	403.95	132.32	39.94
	Max	447.53	148.06	44.87
Jul-24	Average	420.65	126.66	30.47
	Max	454.34	164.23	38.05
Aug-24	Average	405.52	119.47	32.04
	Max	449.19	155.82	39.49
Sep-24	Average	378.78	126.58	37.35
	Max	451.77	156.47	45.42
Oct-24	Average	391.66	132.96	40.56
	Max	444.09	169.19	44.87
Nov-24	Average	354.17	112.73	37.29
	Max	443.57	140.13	44.68
Dec-24	Average	308.81	111.76	38.75
	Max	440.14	126.29	44.21
Jan-25	Average	398.57	151.76	23.92
	Max	443.50	166.26	37.26
Feb-25	Average	380.20	129.39	22.67
	Max	435.46	151.29	35.95
Mar-25	Average	410.67	148.07	31.36
	Max	444.93	164.09	44.54

ANNEXURE-_I

Unit # 3 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-24	Average	485.46	162.39	41.66
	Max	515.37	221.27	43.56
May-24	Average	465.64	175.33	40.79
	Max	531.53	198.57	43.85
Jun-24	Average	439.80	160.03	41.88
	Max	509.09	200.10	44.30
Jul-24	Average	446.78	165.95	39.88
	Max	510.92	241.29	43.92
Aug-24	Average	448.59	212.24	39.27
	Max	522.27	250.66	41.14
Sep-24	Average	490.69	267.32	40.10
	Max	528.99	295.22	44.57
Oct-24	Average	496.56	270.64	41.89
	Max	528.05	297.21	43.32
Nov-24	Average	420.46	164.04	42.41
	Max	520.09	194.21	43.61
Dec-24	Average	467.38	162.08	43.22
	Max	509.29	179.23	44.18
Jan-25	Average	435.72	150.36	39.27
	Max	511.49	190.89	46.88
Feb-25	Average	419.21	116.19	42.36
	Max	513.16	141.08	46.67
Mar-25	Average	486.06	137.50	30.04
	Max	527.95	163.45	40.05

ANNEXURE-_I

Unit # 4 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-24	Average	417.64	191.56	38.24
	Max	519.13	254.60	40.09
May-24	Average	508.82	161.27	38.73
	Max	529.57	188.14	40.89
Jun-24	Average	470.59	160.49	34.36
	Max	513.19	182.50	40.87
Jul-24	Average	479.40	152.63	38.14
	Max	513.89	237.23	40.87
Aug-24	Average	447.60	198.12	35.46
	Max	510.11	278.32	40.89
Sep-24	Average	446.75	230.95	38.20
	Max	480.31	257.20	41.81
Oct-24	Average	391.16	205.54	38.17
	Max	424.38	248.65	41.83
Nov-24	Average	355.11	179.89	35.61
	Max	420.84	234.20	41.07
Dec-24	Average	373.76	137.21	40.14
	Max	424.12	166.21	41.61
Jan-25	Average	358.74	123.02	41.82
	Max	409.76	190.60	46.63
Feb-25	Average	367.04	118.37	40.82
	Max	410.36	152.73	44.54
Mar-25	Average	373.70	148.00	40.78
	Max	398.64	171.69	42.03

ANNEXURE-_I

Unit # 5 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-24	Average	487.32	162.82	35.53
	Max	518.76	229.33	40.81
May-24	Average	419.11	208.88	36.48
	Max	507.30	262.77	41.96
Jun-24	Average	450.51	157.62	37.29
	Max	516.85	182.34	42.72
Jul-24	Average	458.00	155.42	40.44
	Max	518.37	193.54	44.31
Aug-24	Average	451.74	143.87	40.03
	Max	512.54	188.31	43.13
Sep-24	Average	487.74	155.42	41.38
	Max	511.72	188.52	45.44
Oct-24	Average		Shut Down	
	Max			
Nov-24	Average	431.63	160.94	38.95
	Max	513.71	190.54	46.36
Dec-24	Average	481.01	141.58	42.44
	Max	509.88	154.89	46.28
Jan-25	Average	504.18	124.20	42.19
	Max	531.96	168.05	46.63
Feb-25	Average	388.07	126.99	39.37
	Max	506.34	155.79	45.78
Mar-25	Average	484.74	133.53	39.09
	Max	556.03	196.93	45.67

ANNEXURE-_I

Unit # 6 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-24	Average	439.69	221.95	44.37
	Max	550.83	288.16	48.84
May-24	Average	523.00	178.24	44.95
	Max	555.00	271.50	48.50
Jun-24	Average	509.96	209.45	38.36
	Max	519.33	273.56	45.69
Jul-24	Average	476.75	215.63	31.18
	Max	526.73	288.28	42.24
Aug-24	Average	452.79	172.69	32.91
	Max	512.21	267.76	38.45
Sep-24	Average	495.54	187.54	34.75
	Max	521.21	263.30	41.25
Oct-24	Average	492.42	193.57	38.78
	Max	555.07	274.11	42.18
Nov-24	Average	529.68	156.35	31.22
	Max	553.67	211.65	37.96
Dec-24	Average	539.23	140.09	22.98
	Max	546.22	205.92	26.88
Jan-25	Average	363.13	122.48	37.93
	Max	461.49	185.45	38.63
Feb-25	Average	487.59	112.62	37.30
	Max	539.20	133.45	38.68
Mar-25	Average	524.74	124.38	32.71
	Max	562.98	177.89	37.46

ANNEXURE-_I

Unit # 7 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-24	Average	387.82	206.50	31.09
	Max	461.68	236.27	39.91
May-24	Average		Shut Down	
	Max			
Jun-24	Average	417.91	235.40	35.01
	Max	503.31	258.53	41.60
Jul-24	Average	399.86	191.23	31.86
	Max	484.11	277.45	39.13
Aug-24	Average	461.59	196.87	33.27
	Max	495.68	238.66	36.52
Sep-24	Average	434.72	181.99	34.69
	Max	501.61	214.40	41.48
Oct-24	Average	418.45	186.33	34.33
	Max	494.59	263.48	38.62
Nov-24	Average	434.27	162.48	30.56
	Max	478.88	198.45	36.05
Dec-24	Average	421.41	122.43	29.92
	Max	456.59	125.99	36.24
Jan-25	Average	378.79	137.23	32.31
	Max	431.83	185.70	35.58
Feb-25	Average	419.44	113.11	26.93
	Max	477.17	167.23	34.56
Mar-25	Average	422.65	137.98	31.01
	Max	447.39	171.47	35.58

ANNEXURE-_I

Unit # 8 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-24	Average	465.62	207.55	32.66
	Max	511.68	288.19	37.88
May-24	Average	478.20	151.06	39.13
	Max	512.93	183.12	44.91
Jun-24	Average	497.34	178.58	39.61
	Max	518.77	226.33	45.33
Jul-24	Average	491.34	205.84	37.87
	Max	519.66	251.80	44.26
Aug-24	Average	463.21	187.70	33.86
	Max	507.68	234.89	39.45
Sep-24	Average	471.14	183.34	34.22
	Max	509.88	246.46	38.93
Oct-24	Average	442.17	193.23	38.49
	Max	491.29	210.64	42.92
Nov-24	Average	498.17	202.48	33.01
	Max	521.56	240.83	44.83
Dec-24	Average	432.67	181.99	24.59
	Max	480.91	198.48	27.47
Jan-25	Average	470.13	131.92	32.77
	Max	515.47	163.56	42.28
Feb-25	Average	473.18	109.50	35.24
	Max	517.56	126.83	41.16
Mar-25	Average	427.84	114.00	37.61
	Max	510.41	132.51	44.27

ANNEXURE- II

Water Utilization Data- April 2024 – MAR 2025

Month	Inlet Water-Total Consumed (For Industrial Cooling + DM water + Domestic)	Water Consumed for Industrial Cooling	For DM water Process	Domestic Water Consumption
	(KL)	(KL)	(KL)	(KL)
Apr-24	1477481	1418552	55520	3409
May-24	1218889	1137092	78535	3262
Jun-24	1559111	1483054	72642	3415
Jul-24	1620540	1543536	73823	3181
Aug-24	1332507	1278090	51219	3198
Sep-24	1269275	1190334	75833	3108
Oct-24	1341637	1277097	61352	3188
Nov-24	1258137	1189313	65579	3245
Dec-24	1343199	1280817	59216	3166
Jan-25	1384190	1328456	52443	3291
Feb-25	1355526	1306448	45833	3245
Mar-25	1539807	1480244	56155	3408
Total	16700299	15913033	748150	39116

ANNEXURE- III

Effluent Water Quality APR, 2024 – SEPT, 2024

SN	Parameters	UoM	CPCB Limits	Results					
				April	May	June	July	Aug	Sept
1.	pH		6.5-8.5	7.91	7.81	7.69	7.64	7.89	7.94
2.	Biochemical Oxygen Demand (BOD) @ 27Deg C for 3 days	mg/L	< 30.0	16.50	18.00	18.50	20.00	19.00	16.75
3.	Chemical Oxygen Demand (COD)	mg/L	< 250	94.5	93.75	88.00	92.00	99.75	92.75
4.	Total Kjeldhal Nitrogen as NH3	mg/L	< 100	9.08	17.95	22.65	13.60	20.53	10.74
5.	Free Available Chlorine	mg/L	< 0.5	BDL	BDL	BDL	BDL	BDL	BDL
6.	Oil & Grease	mg/L	< 20	1.35	1.68	1.48	1.45	1.85	1.40
7.	Copper as Cu	mg/L	< 1	BDL	BDL	BDL	BDL	BDL	BDL
8.	Zinc as Zn	mg/L	< 1	0.114	BDL	0.139	0.167	0.11	0.145
9.	Iron as Fe	mg/L	< 1	0.125	0.15	0.269	0.137	0.200	0.277
10.	Total SuspendedSolid	mg/L	< 100	29.00	41.50	37.25	37.50	39.75	35.25
11.	Ammonical Nitrogen as N	mg/L	< 50	3.13	10.2	9.79	5.38	10.06	4.45
12.	Nitrate Nitrogen	mg/L	< 10	1.55	1.58	1.65	1.90	2.13	1.14
13.	Total Chromium as Cr	mg/L	< 1	BDL<0.01	BDL<0.01	BDL<0.01	BDL<0.01	BDL<0.01	BDL<0.01

ANNEXURE- III

Effluent Water Quality OCT, 2024 – MARCH, 2025

SN	Parameters	UoM	CPCB Limits	Results					
				Oct	Nov	Dec	Jan	Feb	Mar
1.	pH		6.5-8.5	7.65	7.85	7.53	7.83	7.61	7.88
2.	Biochemical Oxygen Demand (BOD) @ 27Deg C for 3 days	mg/L	< 30.0	19.50	21.25	19.50	19.00	21.50	21.75
3.	Chemical Oxygen Demand (COD)	mg/L	< 250	94.00	103.25	92.50	89.50	92.50	104.3
4.	Total Kjeldhal Nitrogen as NH3	mg/L	< 100	14.93	17.05	12.83	13.55	12.59	13.30
5.	Free Available Chlorine	mg/L	< 0.5	BDL	BDL	BDL	BDL	BDL	BDL
6.	Oil & Grease	mg/L	< 20	1.50	1.87	1.50	1.30	BDL	BDL
7.	Copper as Cu	mg/L	< 1	BDL	BDL	BDL	BDL	BDL	BDL
8.	Zinc as Zn	mg/L	< 1	0.20	0.203	BDL	1.34	0.28	0.120
9.	Iron as Fe	mg/L	< 1	0.84	0.865	BDL	0.511	0.38	0.209
10.	Total SuspendedSolid	mg/L	< 100	32.50	43.5	34.50	41.75	38.50	39.75
11.	Ammonical Nitrogen as N	mg/L	< 50	5.84	7.95	6.30	7.91	7.00	6.53
12.	Nitrate Nitrogen	mg/L	< 10	1.70	1.41	1.36	1.49	1.12	1.30
13.	Total Chromium as Cr	mg/L	< 1	BDL<0.01	BDL<0.01	BDL<0.01	BDL<0.01	BDL<0.01	BDL<0.01

ANNEXURE-IV

Ministry of Environment, Forest and Climate Change
Monthly Abstract of Ash Generation and Utilization

(For the Period from April, 2024 to March, 2025)

Name of Thermal Power Plant: JSW Energy (Barmer) Limited – Jalipa-Kapurdi Thermal Plant Lignite Coal Base Thermal Plant

Sl. No.	ASH GENERATION AND UTILIZATION							Mode of Ash Utilization and Utilization in Each Mode (IN LAKH TON)					
	Month	Coal consumed (Lakh Ton)	Lime Coal Consumed (Lakh Ton)	Ash content of coal (%)	Total Ash content Coal + lime (%)	Ash Generation (Lakh Ton)	Ash Utilization (Lakh Ton)	% Age Utilization	In making of Fly Ash based/ Bricks/ Blocks/ Tiles etc. (Lakh Ton)	In manufacture of Portland Pozzolana Cement (Lakh Ton)	In Mine filling (Lakh Ton)	In Agriculture/ Waste land Development (Lakh Ton)	Others
(1)	(2)	(3)		(4)		(5)	(6)	(7)	(8)	(9)	(15)	(16)	(17)
1	APRIL	4.73112	0.09089	15.41000	17.10000	0.80913	0.61959	76.58000	0.17632	0.44327	0.00000	0.00000	0.00000
2	MAY	3.84902	0.06113	16.45000	17.84000	0.68683	0.51222	74.58000	0.16338	0.34883	0.00000	0.00000	0.00000
3	JUNE	5.53247	0.09804	15.58000	17.14000	0.94841	0.68096	71.80000	0.23194	0.44902	0.00000	0.00000	0.00000
4	JULY	6.01369	0.10124	15.89000	17.37000	1.04484	0.68783	65.83000	0.22189	0.46594	0.00000	0.00000	0.00000
5	AUGUST	5.05301	0.04559	13.69000	14.48000	0.73163	0.58083	79.39000	0.17513	0.40570	0.00000	0.00000	0.00000
6	SEPTEMBER	4.24834	0.04889	10.61000	11.62000	0.49384	0.53265	107.86000	0.16926	0.36339	0.00000	0.00000	0.00000
7	OCTOBER	4.60889	0.06133	10.46000	11.63000	0.53603	0.58642	109.40000	0.21742	0.36900	0.00000	0.00000	0.00000
8	NOVEMBER	4.60086	0.06182	10.26000	11.45000	0.52663	0.76222	144.74000	0.30521	0.45700	0.00000	0.00000	0.00000
9	DECEMBER	5.22835	0.06428	10.21000	11.30000	0.59061	0.82704	140.03000	0.33073	0.49630	0.00000	0.00000	0.00000
10	JANUARY	5.05810	0.08278	10.15000	11.59000	0.58619	0.95449	162.83000	0.39048	0.56400	0.00000	0.00000	0.00000
11	FEBRUARY	4.79122	0.07830	10.08000	11.52000	0.55179	0.71742	130.02000	0.30218	0.41520	0.00000	0.00000	0.00000
12	MARCH	5.35931	0.07867	9.35000	10.64000	0.57030	0.94011	164.85000	0.42073	0.51940	0.00000	0.00000	0.00000
TOTAL		**59.07438**	**0.87295**	**12.37085**	**13.67124**	**8.07620**	**8.40177**	**104.03**	**3.10468**	**5.29710**	**0.00000**	**0.00000**	**0.00000**

ANNEXURE-V

FORM 4

[See rule (1)]

Format for the submission of returns, regarding disposal of hazardous waste.

(To be submitted to the State Pollution Control Board)

1. Name and address of the occupier or operator of a facility: **JSW Energy (Barmer) Limited, Dist. – Barmer-344 001**

2. Details of Authorization No., Person Production for hazardous waste generation:

Sr. No.	Authorization No. and Date of issue	Name of the authorization person and full address with telephone, fax number and e-mail:	Production during the year (production wise), Wherever application
1.	**RPCB/HWM/2020-2021/CPM/HSW/32.** **11/01/2021**	**Mr. Sharad Chandra Totla** **JSW ENERGY (BARMER) LIMITED,** **Village & PO. BHADRESH Dist.: BARMER,** **Rajasthan – 344001** **Telephone: 91 2982 229 100** **Fax: 2982 229 222**	**0.00 Kg** Used Lubrication Oil

2. Details filled by hazardous waste generations: **2024 - 25**

Sr. No.	Total quantity of waste generated category wise	Quantity dispatched	Quantity utilised in-house, if any- site of disposal (attach a sketch showing the location(s) of disposal)			Quantity in storage at the end of the year
			To disposal facility	To recycle or co-processors or pre-processor	Other	
1	**0.00 Kg** Used Spent Oil, **(Sch. (I) Code: 5.1**	**0.00 Kg**	Not application	Nil (Not stored)	Nil	NA

VIJAY CHINTALA
Head of Plant
JSW Energy (Barmer) Limited
Bhadresh - Barmer 344 011

Annexure I

Material Safety Data Sheet
Coal Fly Ash

SECTION I – GENERAL INFORMATION

Subject: Coal Fly Ash

Manufacturer:

JSW Energy (Barmer) Limited

Village & Po. Bhadresh

Pin 344 011, Rajasthan

Telephone Number for Information
91-2982-229 100

SECTION II – HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Mineral Analysis of Ash	**CAS number**	**Wt % Ignited Basis**
Silica Amorphous (SiO2)		40 – 70 %
Alumina (Al2O3)	1344 – 28 – 1	20 – 35 %
Ferric Oxide (Fe2O3)	1309 – 37 – 1	5 – 15 %
Calcium Oxide (CaO)	1305 – 78 – 8	1 – 5 %
Silica Crystalline Quartz	14808 – 60 – 1	2 – 8 %
Silica, Crystalline Cristobilite	14464 – 46 – 1	1 – 3 %
Potassium Oxide (K2O)		1.6 – 2 %
Titanium Oxide (TiO2)	13463 – 67 – 7	1 – 2 %

Note: Concentrations are approximate and may vary with coal source and boiler operating conditions.

SECTION III – PHYSICAL AND CHEMICAL CHARACTERISTICS

Appearance and Odor: Fine grained, gray powder. No Odor.

Boiling Point	N / A	**Evaporation rate**	N / A
Vapor Pressure	N / A	**Melting Point**	1200 deg C
Vapor Density	N / A	**Solubility in water**	Insoluble
Specific Gravity	1.2 to 2.0		

(ASTM D 854) Note: N/A means not applicable

Annexure I

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

Flammability Limits: N/A

Fire and Explosion Hazard: None

Fire Fighting Procedures: Coal Fly ash is the final product of combustion: therefore, unusual hazards are not expected in a fire.

Flash point: N / A

SECTION V – REACTIVITY DATA

Stability **:** Stable, will not polymerize. Stable under normal conditions of storage and handling.

Conditions to avoid: None

Incompatibility: None

Hazardous Decomposition or by product: None reported

SECTION VI – HEALTH HAZARD INFORMATION

Exposure Route:

- Inhalation
- Skin Contact
- Eye Contact

Ingestion: No information on the short term effects from ingestion in humans available. No observed effects in mice that ingest up to 1 % Coal Fly ash in drinking water (Roy et. Al 1981).

Mutations: No information on Mutagenicity in humans was found.

Birth defects and Effects on Reproduction: No information on reproduction effects humans was found.

Other health effects: Inhaled Crystalline Silica may cause pulmonary damage, resulting in Silicosis. Silicosis is defined as degenerative fibrotic lung disease. It has been determined that the pulmonary defence system of mice was significantly affected by Coal Fly ash (Aranyl and Bradof, 1981)

Note: The International Agency for research on Cancer (IARC) has classified Crystalline silica as a probable human carcinogen.

Medical conditions: No information was reported on medical conditions that may be aggravated by exposure to Coal Fly Ash. However, emphysema and bronchitis frequently occur in cases of Silicosis (Merchant Et Al 1981).

Annexure I

SECTION VII – EMERGENCY AND FIRST AID PROCEDURES

Inhalation: Move person to fresh air. Clear nasal passage and discourage affected individual from sniffing. If person is not breathing, contact emergency medical services and initiate basic life support.

Skin: Brush away ash particles. To avoid possible irritation, wash contaminated skin immediately with soap and water. Remove any contaminated clothing and rewash skin if necessary. If skin irritation results, obtain medical attention.

Eyes: Immediately flush the eyes for at least 15 minutes at an eyewash station or use an appropriate flush solution or water while holding the eyelids open. Do not rub. Seek medical attention as soon as possible.

SECTION VIII PRECAUTIONS FOR SAFE HANDLING AND USE

Personnel protection: Employees handling fly ash should wear gloves, goggles, NIOSH respiratory protection and disposable coverlets.

Storage and handling: When storing coal fly ash in ash ponds, treat surface to avoid wind erosion of ash particles. When storing coal fly ash in landfills, the ash should be wetted and covered to avoid wind erosion of ash particles. Open trucks utilised in ash disposal should be properly covered and should be wetted.

Special precautions and Control Measures: Employees handling fly ash should observe proper personal hygiene, wash hands, remove coverlets before eating, smoking, applying cosmetics or using toilet facilities. Local exhaust system should be used whenever possible. Other practices such as wetting should be utilized to control dust. Compressed air should not be used.

SECTION IX – SPILL OR LEAK PROCEDURES

Spill / releases: Fly ash should be placed in suitable containers and covered. Fly ash should be wetted where practical to control dust.

Fly ash is not considered a hazardous waste under EPA's Resource Conservation and Recovery Act (RCRA). Coal Fly Ash may be disposed of by adding to cement mixtures, asphalt additives and as agricultural soil modifiers (Roy Et Al 1981)