Energy (Barmer) Limited
Village & Post : Bhadresh, Post Box No. 30,
Distt : Barmer – 344001 (Rajasthan)
CIN : U31102MH1996PLC185098
Phone : +91 2982 229100
Website: www.jsw.in

Ref: JSWE(B)L/ENV/25-26/010 **Date: 16.06.2025**

To,

Ministry of Environment Forests & Climate Change,

Integrated Regional Office,

A-209&218, Aranya Bhavan, M. G. Road,

Jaipur-304002, Rajasthan.

Sub: Compliance Report-Environmental Clearance for 1080 MW Lignite based Power Plant at Village-Bhadresh, District Barmer.

Dear Sir,

With reference to your letter No. J-13011/58/2006-IA-II (T) dated 20.07.2007 and 19.11.2009, and followed by Letter no. IV/ENV/R/Th-39/679/08/273, we herewith submit half-yearly compliance report, for the period pertaining to **October- 2024 to March- 2025,** for the conditions stipulated in the Environmental clearance issued for this Power Project. Analysis Data has uploaded on JSWEBL website – http://www.jsw.in/energy/about-barmer-plant.

We have taken up the Project activity at proposed site incorporating the conditions stipulated in this environmental clearance.

Thanking you.

For JSW ENERGY (BARMER) Ltd.

Sharad Chandra Totla
GM (Operation & Maintenance)

Enclosure:

1. Compliance Report
2. Water consumption Data **-Annexure I**
3. Effluent Water Data **-Annexure II**
4. Coal Analysis Data **-Annexure III**
5. CEMS & Stack Monitoring DATA **-Annexure IV**
6. Ash Utilization Data **-Annexure V**
7. Noise Monitoring **-Annexure VI**
8. AAQ Monitoring Data **-Annexure VII**
9. Environmental Expenditure **- Annexure VIII**
10. Last Compliance Report **-Annexure IX**

C.C.

The Member Secretary – Central Pollution Control Board, Delhi
The Member Secretary – RSPCB, Jaipur
The Regional Officer – RSPCB, Balotra.

Compliance report for MOEF conditions stipulated in Environmental Clearance (dt. 20-07-2007 as amended on 19-11-2009) for 1080 MW Lignite-based power project of RWPL at Village-Bhadresh, District-Barmer

Reporting Period: OCT, 2024- MAR-2025

S.N.	Condition	Status
i	No land in excess of 468 ha shall be acquired for any activity of the project.	Land acquisition has been carried at the time of setting up the Power Project. No additional land been acquired for this Project.
ii	The water requirement for the project shall not exceed 35.5 cusecs. No ground water shall be abstracted for any activity of the project.	Water in excess of the mandated 35.5 cusecs would not be drawn during the operation of the Project. IGNP supplied water is being used for generation of electricity as per EC conditions. Water being used Records of Water received from IGNP is enclosed. **ANNEXURE-I**
iii	*Closed Circuit Cooling System with induced draft cooling towers shall be installed.*	Four numbers of closed-circuit cooling tower blocks with induced draft cooling towers have been erected and are in operation.
iv	*Treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. No effluents shall be discharged outside the plant boundary.*	A common **ETP (Aeration – Clarifier – Filtration – Ultra Filtration – Reverse Osmosis)** to cater to all the 8 power generating units has erected. All the process effluents generated is being treated in this ETP and reused within the plant ensuring zero discharge outside the plant boundary. Effluent Water Quality Data – **Annexure – II**
v	*Lignite with ash content not exceeding 20% and sulphur content not exceeding 2.0% shall be used.*	Lignite with ash content less than 20% and Sulphur content less than 2% being used. Third party analysis reports for the same are enclosed. **ANNEXURE-III**
vi	*Space provision for FGD shall be made, if required at a later stage.*	The Project is based on Circulating Fluidized Base Combustion technology for fuel firing and involves injection of lime, which absorbs Sulphur. As such, there is no requirement for FGD. However, space provision has been made for FGD.

vii	*Four stacks of 122 m height each with exit velocity of at least 20 m/s shall be provided with continuous online monitoring system.*	A total of four bi-flue stacks, each flue of 122 m height, shall release the flue gases to the atmosphere. All these stacks being equipped with Continuous Emission Monitoring Systems (CEMS), to ensure the emission of PM, SO2, NOx & CO to be within prescribed levels. **ANNEXURE-IV**
viii	*Low NOx burners shall be installed.*	The boiler is designed on Circulating Fluidized Bed Combustion, system attains to very low NOx generation. **ANNEXURE-IV**
ix	*High efficiency Electrostatic Precipitator (ESPs) having efficiency of 99.9% shall be installed so as to ensure that particulate emissions do not exceed 100 mg/Nm^3.*	High efficiency ESPs are installed to maintain PM emission levels at less than 100 mg/Nm^3. **ANNEXURE-IV**
xi	*Fly ash shall be collected in dry form and its 100% utilization shall be ensured within 3 years from the day of the commissioning of the plant. Ash to be disposed off in the ash pond shall be through HCSD system.*	Fly ash is being collected in dry form from the currently operational EIGHT Units and is being lifted by M/s Shree Cement, M/s. JK Lakshmi, M/s. Ambuja Cement Limited & M/s Binani Cements and many Local Brick and Tiles Block manufacturer. Unutilized ash, if any, would be disposed off to the emergency ash pond through HCSD system. **Ash Utilization data ANNEXURE-V**
xii	*Ash pond shall be lined with 0.5 mm thick HDPE geo-membrane lining.*	The ash pond is lined with 0.5 mm thick HDPE geo-membrane, to avoid any leachate to the ground.
xiii	*Details of compensation to be paid to the land oustees along with number of land oustees shall be worked out and submitted to this Ministry within three months from the date of issue of this letter or before the start of work on the project whichever is earlier.*	Resettlement Action Plan (RAP) was compiled and submitted to the MOEF on 30-07-2007.
xiv	*Necessary prior clearance from NHAI shall be obtained before laying the pipeline.*	All necessary prior clearance from NHAI had obtained before laying the pipeline and a copy Submitted.

xv	*Necessary prior clearance from Indian Air Force shall be obtained for construction of stacks of requisite height before starting the work on the project.*	Before commencing the civil work on the stacks, necessary clearance had obtained from the Indian Air Force.
xvi	*Adequate measures shall be taken up to maintain the sanctity and protection from any adverse impact from the proposed power project to the temple of Sant Ishardas Samadhi.*	The Temple is outside the plant premises. In consultation with the local population, suitable developmental measures such as supply of lighting and electricity have been taken for this temple.
xvii	*Regular monitoring of ground water quality including heavy metals shall be undertaken in the project area to ascertain the change, if any, in the water quality due to leaching of contaminants from the ash disposal area.*	There is hardly any ground water within 20 km of the Project area.
xviii	*Noise levels shall be limited to 75 dBA. For people working in the high noise area, protective devices such as earplugs etc. shall be provided.*	The machinery has been designed to limit the noise levels to 75 dB (A). All personnel working in the Plant have PPEs issued. **ANNEXURE-VI**
xix	*A greenbelt shall be developed all around the plant boundary and ash pond covering an area of 154 ha.*	A total of 154 Ha area brought under green belt developed as designated greenbelt area. Mortality replacement work is continuous process and is being carried.
xx	*Regular monitoring of the air quality shall be carried out in and around the power plant and records shall be maintained. The location of monitoring stations and frequency of monitoring shall be finalized in consultation with SPCB. Six monthly reports shall be submitted to this Ministry.*	Regular monitoring of AAQ is being carried out in and around the power plant at locations and frequency finalized in consultation with the RSPCB and records are maintained. **ANNEXURE-VII**
xxi	*For controlling fugitive dust, regular sprinkling of water in lignite handling area and other vulnerable areas of the plant shall be ensured.*	Regular sprinkling of water is being practiced to minimize the fugitive dust emissions.

xxii	*The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which should be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Pollution Control Board/Committee and may also be seen in the Website of the Ministry of Environment and Forests in the http://envfor.nic.in.*	Published in Rajasthan Patrika Jodhpur Edition, Dt 19/08/2007
xxiii	*A separate environment monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguards.*	A dedicated environment monitoring cell with qualified staff has been established and is operative.
xxiv	*Half yearly report on the status of implementation of the conditions and environmental safeguards should be submitted to this Ministry, its Regional Office, CPCB and SPCB.*	Being complied with. Copy of Submission enclosed **– Annexure IX**
xxv	*Regional Office of the Ministry of Environment & Forests located at Lucknow will monitor the implementation of the stipulated conditions. Complete set of Environmental Impact Assessment Report and Management Plan along with additional information submitted to this Ministry should be forwarded to the Regional Office for their use during monitoring.*	Submitted.
xxvi	*Separate funds should be allocated for implementation of environmental protection measures along with item-wise break-up. These cost should be included as part of the project cost. The funds earmarked for the environment protection measures should not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.*	The funds earmarked for environmental protection measures will not be diverted for other purposes. **Annexure VIII**
xxvii	*Full cooperation should be extended to the Scientists/Officers from the Ministry and its Regional Office at Lucknow /the CPCB/the SPCB during monitoring of the project.*	Being complied.

ANNEXURE - I

IGNP WATER BILL

OCTOMBER- 2024 to MARCH- 2025

Month	Cuft/Month	Cum/Month	Cuft/day	Cusecs – Day
OCTOBER-24	66076491	1871088	2131500	24.67
NOVEMBER-24	30566515	865552	1018884	11.79
DECEMBER-24	37511883	1062224	1210061	14.01
JANUARY-25	44085461	1248368	1422112	16.46
FEBRUARY-25	39979941	1132112	1427855	16.53
MARCH-25	69863898	1978336	2253674	26.08

ANNEXURE-I

Government of Rajasthan
Indira Gandhi Nahar Project

No. 256 Date: 04/11/2024

The General Manager
J.S.W Energy (Barmer) Limited
Near Saint paul school
Indira colony Barmer, Rajasthan

Sub: Raw water bill for industrial purpose for the period october/2024

S.No.	Particular	Reading as on 30/09/2024	Reading as on 31/10/2024	Difference as per flow meter	Qty. in CFT	Unit	Rate	Amount
1	Supply of raw water from IGMN to JSW for industrial purpose	186267424	188138512	1871088	66076491.15	/1000 cft	332.75	21986952.43
							SAY RS	21986952.00

Rs.- Two crore Nineteen Lakh Eighty six thousand nine hundred fifty two only

S.No.
Xen tmc dn ignp mohangarh

Date:

Assistant Engineer
Sub dn. III 28th u/c tmc dn.
IGNP Mohangarh

सहायक अभियन्ता
उपखण्ड III 28 वां प्र.नि.
टी.एम.सी. खण्ड इ.गां.न.प

Government of Rajasthan
Indira Gandhi Nahar Project

No. 277 Date: 02/12/2024

The General Manager
J.S.W Energy (Barmer) Limited
Near Saint paul school
Indira colony Barmer, Rajasthan

Sub: Raw water bill for industrial purpose for the period November/2024

S.No.	Particular	Reading as on 31/10/2024	Reading as on 30/11/2024	Difference as per flow meter	Qty. in CFT	Unit	Rate	Amount
1	Supply of raw water from IGMN to JSW for industrial purpose	188138512	189004064	865552	30566514.81	/1000 cft	332.75	10171007.80
							SAY RS	10171008.00

Rs.-One crore one Lakh Seventy One thousand Eight only

S.No.
Xen tmc dn ignp mohangarh

Date:

Assistant Engineer
Sub dn. III 28th u/c tmc dn.
IGNP Mohangarh

सहायक अभियन्ता
उपखण्ड III 28 वां प्र.नि.
टी.एम.सी.खण्ड, इ.गा.न.प
मोहनगढ

No. 304

Government of Rajasthan
Indira Gandhi Nahar Project

Date: 02/01/2025

The General Manager
J.S.W Energy (Barmer) Limited
Near Saint paul school
Indira colony Barmer, Rajasthan

Sub: Raw water bill for industrial purpose for the period December/2024

S.No.	Particular	Reading as on 30/11/2024	Reading as on 31/12/2024	Difference as per flow meter	Qty. in CFT	Unit	Rate	Amount
1	Supply of raw water from IGMN to JSW for industrial purpose	189004064	190066288	1062224	37511883.32	/1000 cft	332.75	12482079.18
							SAY RS	12482079.00

Rs.-One crore Twenty Four Lakh Eighty Two thousand Seventy Nine only

S.No.
Xen tmc dn ignp mohangarh

Date:

Assistant Engineer
Sub dn. III 28th u/c tmc dn.
IGNP Mohangarh

सहायक अभियन्ता
उपखण्ड III 28 वां प्र.नि.
टी.एम.सी.खण्ड, इ.गा.न.प
मोहनगढ

ANNEXURE-I

Government of Rajasthan
Indira Gandhi Nahar Project

No. 349 Date: 03/02/2025

The General Manager
J.S.W Energy (Barmer) Limited
Near Saint paul school
Indira colony Barmer, Rajasthan

Sub: Raw water bill for industrial purpose for the period January/2025

S.No.	Particular	Reading as on 31/12/2024	Reading as on 31/01/2025	Difference as per flow meter	Qty. in CFT	Unit	Rate	Amount
1	Supply of raw water from IGMN to JSW for industrial purpose	190066288	191314656	1248368	44085461.03	/1000 cft	332.75	14669437.16
							SAY RS	14669437.00

Rs.-One crore Forty Six Lakh Sixty Nine thousand Four Hundred Thirty Seven only

S.No.
Xen tmc dn ignp mohangarh

Date:

Assistant Engineer
Sub dn. III 28th u/c tmc dn
IGNP Mohangarh

सहायक अभियन्ता
उपखण्ड III 28 वां प्र.नि.
टी.एम.सी.खण्ड इ.गा.न.प.
मोहनगढ़

Government of Rajasthan
Indira Gandhi Nahar Project

No. 370 Date: 03/03/2025

The General Manager
J.S.W Energy (Barmer) Limited
Near Saint paul school
Indira colony Barmer, Rajasthan

Sub: Raw water bill for industrial purpose for the period Feb/2025

S.No.	Particular	Reading as on 31/01/2025	Reading as on 28/02/2025	Difference as per flow meter	Qty. in CFT	Unit	Rate	Amount
1	Supply of raw water from IGMN to JSW for industrial purpose	191314656	192446768	1132112	39979941.38	/1000 cft	332.75	13303325.49
							SAY RS	13303325.00

Rs.-One crore Thirty Three Lakh Three thousand Three Hundred Twenty Five only

S.No.
Xen tmc dn ignp mohangarh

Date:

Assistant Engineer
Sub dn. III 28th u/c tmc dn.
IGNP Mohangarh

सहायक अभियन्ता
उपखण्ड III 28 वां प्रा०नि०
टी एम सी खण्ड
इ०गा०न०प० मोहनगढ़
सिविल कोड 24856

Government of Rajasthan
Indira Gandhi Nahar Project

No. 63 Date: 04/06/2024

The General Manager
J.S.W Energy (Barmer) Limited
Near Saint paul school
Indira colony Barmer, Rajasthan

Sub: Raw water bill for industrial purpose for the period May/2024

S.No.	Particular	Reading as on 30/04/2024	Reading as on 31/05/2024	Difference as per flow meter	Qty. in CFT	Unit	Rate	Amount
1	Supply of raw water from IGMN to JSW for industrial purpose	179290048	180547136	1257088	44393403.26	/1000 cft	332.75	14771904.93
							SAY RS	14771905.00

Rs.-One Crore Forty seven Lakh Seventy One thousand Nine Hundred five only

S.No.
Xen tmc dn ignp mohangarh

Date:

Assistant Engineer
Sub dn. III 28th u/c tmc dn.
IGNP Mohangarh

सहायक अभियन्ता
उपखण्ड III 28 वां प्र.नि.
टी.एम.सी.खण्ड, इ.गा.न.प.
मोहनगढ़

ANNEXURE-II

Effluent Water Quality Oct– 2024 to Mar– 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	0.34	0.28	0.120
9.	Iron as Fe	mg/L	**< 1**	0.84	0.865	BDL	0.511	0.38	0.209
10.	Total Suspended Solid	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-III

COAL ANALYSIS REPORT

COAL ANALYSIS REPORT OCT, 2024 – MARCH, 2025

	AVERAGE		
Month	**Total Moisture**	**Gross Calorific Value**	**Sulfur**
	%	**Kcal/Kg**	**%**
OCTOBER-24	41.72	3045.57	0.39
NOVEMBER-24	41.18	2975.91	0.41
DECEMBER-24	41.66	2987.05	0.38
JANUARY-25	41.50	2981.11	0.38
FEBRUARY-25	41.88	2982.89	0.37
MARCH-25	41.61	2977.55	0.37

ANNEXURE-III

Quality Council of India
2nd Floor, Institution of Engineers Building,
Bahadur Shah Zafar Marg,
New Delhi – 110 002, India

Report ID: QCI/COAL/JSW/SH/MR/144
Source Name: Screenhouse (As Fired)
Consumer Name: JSW Energy, Barmer Limited

Date: 09th November'2024

This is to certify that the weighted average analysis parameters of Lignite Coal (As Received basis) collected from Conveyor belt feeding to Unit# 1, 2, 3, 4, 5,6,7 and 8 is mentioned below:

Month	Quantity (in Metric Tonnes)	Analysis Parameters (As Received Basis) on weighted average		
		Total Moisture %	Sulphur %	GCV "Kcal/Kg"
October'2024	460889.00	41.72	0.39	3045.57

Quality Council of India Barmer

Mr. F.C. Srivastava
Deputy Director
Finance & Accounts Division, QCI

Note:
Sampling and analysis done by Quality Council of India (QCI) with the help of its technical service provider. Weighted Average Report is based on the basis Daily analysis report analyzed by QCI.
GCV analysis has been done in accordance to BIS specification, IS 1350 (Part-II), 1970 Reaffirmed: 2017
Testing and analysis performed at NABL accredited lab.
#Total Moisture determination has been done by QCI with the help of its third-party agency at JSW Energy (Barmer) limited laboratory in accordance to BIS specification, IS 1350 (Part-I), 1984 reaffirmed:2013

ANNEXURE-III

Quality Council of India
2nd Floor, Institution of Engineers Building,
Bahadur Shah Zafar Marg,
New Delhi – 110 002, India

Report ID: QCI/COAL/JSW/SH/MR/147
Source Name: Screenhouse (As Fired)
Consumer Name: JSW Energy, Barmer Limited

Date: 06th December'2024

This is to certify that the weighted average analysis parameters of Lignite Coal (As Received basis) collected from Conveyor belt feeding to Unit# 1, 2, 3, 4, 5,6,7 and 8 is mentioned below:

Month	Quantity (in Metric Tonnes)	Analysis Parameters (As Received Basis) on weighted average		
		Total Moisture %	Sulphur %	GCV "Kcal/Kg"
November'2024	460086.00	41.18	0.40	2975.91

Quality Council of India

Mr. F.C. Srivastava
Deputy Director
Finance & Accounts Division, QCI

Note:
Sampling and analysis done by Quality Council of India (QCI) with the help of its technical service provider. Weighted Average Report is based on the basis Daily analysis report analyzed by QCI.
GCV analysis has been done in accordance to BIS specification, IS 1350 (Part-II), 1970 Reaffirmed: 2017
Testing and analysis performed at NABL accredited lab.
#Total Moisture determination has been done by QCI with the help of its third-party agency at JSW Energy (Barmer) limited laboratory in accordance to BIS specification, IS 1350 (Part-I), 1984 reaffirmed:2013

ANNEXURE-III

Quality Council of India
2nd Floor, Institution of Engineers Building,
Bahadur Shah Zafar Marg,
New Delhi – 110 002, India

Report ID: QCI/COAL/JSW/SH/MR/150
Source Name: Screenhouse (As Fired)
Consumer Name: JSW Energy, Barmer Limited

Date: 11th January'2025

This is to certify that the weighted average analysis parameters of Lignite Coal (As Received basis) collected from Conveyor belt feeding to Unit# 1, 2, 3, 4, 5,6,7 and 8 is mentioned below:

Month	Quantity (in Metric Tonnes)	Analysis Parameters (As Received Basis) on weighted average		
		Total Moisture %	Sulphur %	GCV "Kcal/Kg"
December'2024	522835.00	41.66	0.38	2987.05

Quality Council of India Barmer

Mr. F.C. Srivastava
Deputy Director
Finance & Accounts Division, QCI

Note:
Sampling and analysis done by Quality Council of India (QCI) with the help of its technical service provider. Weighted Average Report is based on the basis Daily analysis report analyzed by QCI.
GCV analysis has been done in accordance to BIS specification, IS 1350 (Part-II), 1970 Reaffirmed: 2017
Testing and analysis performed at NABL accredited lab.
#Total Moisture determination has been done by QCI with the help of its third-party agency at JSW Energy (Barmer) limited laboratory in accordance to BIS specification, IS 1350 (Part-I), 1984 reaffirmed:2013

ANNEXURE-III

Quality Council of India
2nd Floor, Institution of Engineers Building,
Bahadur Shah Zafar Marg,
New Delhi – 110 002, India

Report ID: QCI/COAL/JSW/SH/MR/153
Source Name: Screenhouse (As Fired)
Consumer Name: JSW Energy, Barmer Limited

Date: 07th Feburary'2025

This is to certify that the weighted average analysis parameters of Lignite Coal (As Received basis) collected from Conveyor belt feeding to Unit# 1, 2, 3, 4, 5,6,7 and 8 is mentioned below:

Month	Quantity (in Metric Tonnes)	Analysis Parameters (As Received Basis) on weighted average		
		Total Moisture %	Sulphur %	GCV "Kcal/Kg"
January'2025	505810.00	41.50	0.38	2981.11

Quality Council of India

Mr. F.C. Srivastava
Deputy Director
Finance & Accounts Division, QCI

Note:
Sampling and analysis done by Quality Council of India (QCI) with the help of its technical service provider. Weighted Average Report is based on the basis Daily analysis report analyzed by QCI.
GCV analysis has been done in accordance to BIS specification, IS 1350 (Part-II), 1970 Reaffirmed: 2017
Testing and analysis performed at NABL accredited lab.
#Total Moisture determination has been done by QCI with the help of its third-party agency at JSW Energy (Barmer) limited laboratory in accordance to BIS specification, IS 1350 (Part-I), 1984 reaffirmed:2013

ANNEXURE-III

Quality Council of India
2nd Floor, Institution of Engineers Building,
Bahadur Shah Zafar Marg,
New Delhi – 110 002, India

Report ID: QCI/COAL/JSW/SH/MR/156
Source Name: Screenhouse (As Fired)
Consumer Name: JSW Energy, Barmer Limited

Date: 07th March'2025

This is to certify that the weighted average analysis parameters of Lignite Coal (As Received basis) collected from Conveyor belt feeding to Unit# 1, 2, 3, 4, 5,6,7 and 8 is mentioned below:

Month	Quantity (in Metric Tonnes)	Analysis Parameters (As Received Basis) on weighted average		
		Total Moisture %	Sulphur %	GCV "Kcal/Kg"
February'2025	479122.00	41.88	0.37	2982.89

Quality Council of India

Mr. F.C. Srivastava
Deputy Director
Finance & Accounts Division, QCI

Note:
Sampling and analysis done by Quality Council of India (QCI) with the help of its technical service provider. Weighted Average Report is based on the basis Daily analysis report analyzed by QCI.
GCV analysis has been done in accordance to BIS specification, IS 1350 (Part-II), 1970 Reaffirmed: 2017
Testing and analysis performed at NABL accredited lab.
#Total Moisture determination has been done by QCI with the help of its third-party agency at JSW Energy (Barmer) limited laboratory in accordance to BIS specification, IS 1350 (Part-I), 1984 reaffirmed:2013

ANNEXURE-III

Quality Council of India
2nd Floor, Institution of Engineers Building,
Bahadur Shah Zafar Marg,
New Delhi – 110 002, India

Report ID: QCI/COAL/JSW/SH/MR/159
Source Name: Screenhouse (As Fired)
Consumer Name: JSW Energy, Barmer Limited

Date: 08th April'2025

This is to certify that the weighted average analysis parameters of Lignite Coal (As Received basis) collected from Conveyor belt feeding to Unit# 1, 2, 3, 4, 5,6,7 and 8 is mentioned below:

Month	Quantity (in Metric Tonnes)	Analysis Parameters (As Received Basis) on weighted average		
		Total Moisture %	Sulphur %	GCV "Kcal/Kg"
March'2025	535931.00	41.61	0.37	2977.55

Quality Council of India Barmer

Mr. F.C. Srivastava
Deputy Director
Finance & Accounts Division, QCI

Note:
Sampling and analysis done by Quality Council of India (QCI) with the help of its technical service provider. Weighted Average Report is based on the basis Daily analysis report analyzed by QCI.
GCV analysis has been done in accordance to BIS specification, IS 1350 (Part-II), 1970 Reaffirmed: 2017
Testing and analysis performed at NABL accredited lab.
#Total Moisture determination has been done by QCI with the help of its third-party agency at JSW Energy (Barmer) limited laboratory in accordance to BIS specification, IS 1350 (Part-I), 1984 reaffirmed:2013

ANNEXURE-IV

STACK EMISSION MONITORING RESULTS October – 2024 to Mar – 2025

Month: Oct' 2024

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	17.17	16.49	15.81	14.49	SHUT DOWN	15.38	16.00	16.90
2	Flow	Nm3/Sec	135.5	131.0	125.3	116.5		121.4	127.1	134.0
3	Stack Exit Temp.	0C	151	148	149	143		151	148	149
4	Particulate Matter	mg/Nm3	37.0	33.8	31.6	32.2		36.1	33.9	34.5
5	Sulphur Dioxide	mg/Nm3	410.4	427.9	416.1	424.5		421.7	430.5	396
6	Oxides of Nitrogen	mg/Nm3	121.6	126.6	129.8	122.7		118.6	125.7	134

Month: Nov' 2024

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	18.27	18.77	18.23	18.73	17.53	19.27	19.02	18.77
2	Flow	Nm3/Sec	138.6	144.4	138.9	147.4	140.0	149.9	147.3	144.0
3	Stack Exit Temp.	0C	168	162	166	152	146	157	159	162
4	Particulate Matter	mg/Nm3	40.5	35.7	30.9	34.0	31.4	38.8	32.8	31.9
5	Sulphur Dioxide	mg/Nm3	412.9	424.3	413.6	427.6	410.0	419.2	432.7	387.5
6	Oxides of Nitrogen	mg/Nm3	123.9	121.9	131.8	125.7	112.9	116.2	127.9	130.9

Month: DEC' 2024

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	18.27	18.77	18.23	18.73	17.53	19.27	19.02	18.77
2	Flow	Nm3/Sec	135.5	134.4	135.6	138.5	136.7	143.0	143.9	131.2
3	Stack Exit Temp.	0C	174	168	162	171	160	164	165	172
4	Particulate Matter	mg/Nm3	37.9	34.4	32.1	37.9	35.45	39.9	33.8	33.5
5	Sulphur Dioxide	mg/Nm3	410.3	401.6	407.6	436.9	410.1	419.0	427.1	379.1
6	Oxides of Nitrogen	mg/Nm3	122.7	117.8	128.7	129.7	111.7	117.5	121.9	127

ANNEXURE-IV

Month: Jan' 2025

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	16.99	16.58	16.05	16.71	16.79	15.43	16.60	16.43
2	Flow	Nm3/Sec	134.7	129.6	126.6	131.5	134.1	121.8	133.2	129.9
3	Stack Exit Temp.	0C	149	155	151	152	146	151	144	150
4	Particulate Matter	mg/Nm3	32.9	36.9	34.6	35.9	39.1	40.0	36.2	33.4
5	Sulphur Dioxide	mg/Nm3	421.9	404.6	401.8	422.1	393.2	416.3	416.0	421.9
6	Oxides of Nitrogen	mg/Nm3	117.5	101.4	111.3	110	105.1	110	120.7	111.3

Month: Feb' 2025

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	15.35	15.01	16.72	15.43	15.88	15.67	15.82	16.12
2	Flow	Nm3/Sec	121.7	118.4	132.2	121.8	122.4	121.6	122.8	124.6
3	Stack Exit Temp.	0C	149	151	150	151	161	158	158	160
4	Particulate Matter	mg/Nm3	29.1	32.2	30.2	34.3	36.3	34.9	30.1	36.1
5	Sulphur Dioxide	mg/Nm3	430.2	407.6	413.3	418.8	427.9	430.5	442	451
6	Oxides of Nitrogen	mg/Nm3	104.3	110	113.3	112.5	118.3	119.5	121.6	124.6

Month: Mar' 2025

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	15.40	16.93	17.77	16.51	15.40	16.89	15.88	16.29
2	Flow	Nm3/Sec	122.1	135.2	138.9	129.4	122.1	133.3	122.4	126.4
3	Stack Exit Temp.	0C	149	146	155	154	149	151	161	158
4	Particulate Matter	mg/Nm3	30.6	31.9	34.8	32.4	35.2	36.0	37.4	29.0
5	Sulphur Dioxide	mg/Nm3	416.1	421.4	436.2	410.5	416.0	421.4	401.7	422.1
6	Oxides of Nitrogen	mg/Nm3	111.3	115.8	107.2	107.9	104.3	97.5	108.4	112.1

ANNEXURE-IV

Unit # 1 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
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

Unit # 2 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
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-II

Unit # 3 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
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

Unit # 4 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
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-II

Unit # 5 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-24	Average			
	Max	UNIT	SHUT	DOWN
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

Unit # 6 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
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-II

Unit # 7 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
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

Unit # 8 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
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

Regd. Office : JSW Energy (BARMER) Limited, JSW Center, BKC Complex, Bandra (E), Mumbai – 400051
Jaipur Office: Office No. 2 & 3, 7th Floor, Man Upasana Plaza, C-44, Sardar Patel Marg, C-Scheme, Jaipur – 302 001 Ph : 0141 2369772 Fax 0141 2369774

Energy (Barmer) Limited
Village & Post : Bhadresh, Post Box No. 30,
Distt : Barmer – 344001 (Rajasthan)
CIN : U31102MH1996PLC185098
Phone : +91 2982 229100
Website: www.jsw.in

ANNEXURE-V

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

(For the Period from **Oct, 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	OCTOBER	4.60889	0.06133	10.46000	11.63000	0.53603	0.58642	109.40000	0.21742	0.36900	0.00000	0.00000	0.00
2	NOVEMBER	4.60086	0.06182	10.26000	11.45000	0.52663	0.76222	144.74000	0.30521	0.45700	0.00000	0.00000	0.00
3	DECEMBER	5.22835	0.06428	10.21000	11.30000	0.59061	0.82704	140.03000	0.33073	0.49630	0.00000	0.00000	0.00
4	JANUARY	5.05810	0.08278	10.15000	11.59000	0.58619	0.95449	162.83000	0.39048	0.56400	0.00000	0.00000	0.00
5	FEBRUARY	4.79122	0.07830	10.08000	11.52000	0.55179	0.71742	130.02000	0.30218	0.41520	0.00000	0.00000	0.00
6	MARCH	5.35931	0.07867	9.35000	10.64000	0.57030	0.94011	164.85000	0.42073	0.51940	0.00000	0.00000	0.00
TOTAL		29.64673	0.42718	10.09	11.36	3.36155	4.7877	141.98	1.96675	2.8209	0	0	0

Energy (Barmer) Limited
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ANNEXURE-VI

Noise Level Monitoring- Oct'2024 – Mar' 2025

SN	Month	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25	
	Noise Levels dB (A)	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
1	MAIN GATE INSIDE	68.3	63.5	71.0	63.1	71.2	65.1	70.6	60.2	69.9	65.6	71.1	66.4
2	COOLING TOWER END	69.6	62.5	67.0	64.6	69.6	64.3	71.9	66.7	68.0	65.0	69.2	66.1
3	NORTH WEST CORNER	72.2	68.5	68.9	65.4	68.8	65.1	67.6	64.0	67.3	59.9	68.2	61.0
4	Bhadresh Village	48.0	38.8	52.6	43.6	51.8	42.5	47.3	43.3	49.3	43.0	46.9	38.5
5	Isharpura Village	52.0	43.4	49.9	42.8	50.4	42.3	50.9	44.9	49.6	42.1	48.5	43.3
6	Chuli Village	51.2	41.8	52.6	41.6	51.4	40.8	52.1	41.3	45.6	37.2	48.2	42.5

ANNEXURE-VII

Ambient Air Quality Data- OCT, 2024 – MARCH, 2025

Month – Oct' 2024

SN	Location (Avg.24 Hrs.)	PM-10 (µg/m³)	SO2 (µg/m³)	NO2 (µg/m³)	CO (mg/m³)	PM-2.5 (µg/m³)
1	Reservoir Area	31.11	6.16	16.83	0.56	16.63
2	Main Gate	31.20	20.38	26.24	0.35	22.20
3	Ash pond	46.53	21.41	29.25	0.86	23.19
4	Ishrpura Village	75.59	18.42	35.86	0.63	43.89
5	Bhadresh Village	75.94	18.24	35.03	0.70	44.26
6	Chuli Village	76.99	17.88	34.19	0.59	44.08

Month – Nov' 2024

SN	Location (Avg.24 Hrs.)	PM-10 (µg/m³)	SO2 (µg/m³)	NO2 (µg/m³)	CO (mg/m³)	PM-2.5 (µg/m³)
1	Reservoir Area	30.60	11.78	25.54	0.33	18.59
2	Main Gate	30.75	22.02	26.24	0.30	21.55
3	Ash pond	30.67	13.22	36.75	0.86	21.64
4	Ishrpura Village	79.37	19.79	36.70	0.63	46.05
5	Bhadresh Village	76.53	18.38	34.87	0.67	43.41
6	Chuli Village	76.08	20.14	36.93	0.65	44.54

Month – Dec' 2024

SN	Location (Avg.24 Hrs.)	PM-10 (µg/m³)	SO2 (µg/m³)	NO2 (µg/m³)	CO (mg/m³)	PM-2.5 (µg/m³)
1	Reservoir Area	27.26	10.31	14.83	0.40	19.90
2	Main Gate	49.89	23.11	26.25	0.30	43.98
3	Ash pond	30.96	11.94	20.94	0.89	24.99
4	Ishrpura Village	77.16	18.17	35.06	0.59	43.24
5	Bhadresh Village	76.79	17.79	33.98	0.64	41.92
6	Chuli Village	76.56	19.13	32.89	0.59	41.85

ANNEXURE-VII

Month – Jan' 2025

SN	Location (Avg.24 Hrs.)	PM-10 (µg/m³)	SO2 (µg/m³)	NO2 (µg/m³)	CO (mg/m³)	PM-2.5 (µg/m³)
1	Reservoir Area	30.45	13.79	24.12	0.36	18.15
2	Main Gate	44.79	22.82	32.79	0.33	29.27
3	Ash pond	42.75	12.93	18.98	0.85	25.17
4	Ishrpura Village	76.69	18.93	36.56	0.71	43.21
5	Bhadresh Village	76.34	17.86	37.18	0.72	44.08
6	Chuli Village	73.52	17.86	35.36	0.59	41.69

Month – Feb' 2025

SN	Location (Avg.24 Hrs.)	PM-10 (µg/m³)	SO2 (µg/m³)	NO2 (µg/m³)	CO (mg/m³)	PM-2.5 (µg/m³)
1	Reservoir Area	51.63	10.98	24.76	0.34	27.09
2	Main Gate	51.27	13.25	30.97	0.32	32.82
3	Ash pond	36.83	17.75	6.91	0.82	21.02
4	Ishrpura Village	76.40	15.39	31.22	0.64	41.48
5	Bhadresh Village	76.01	17.75	35.77	0.67	42.57
6	Chuli Village	75.29	17.84	32.80	0.54	42.42

Month – Mar' 2025

SN	Location (Avg.24 Hrs.)	PM-10 (µg/m³)	SO2 (µg/m³)	NO2 (µg/m³)	CO (mg/m³)	PM-2.5 (µg/m³)
1	Reservoir Area	49.80	10.46	33.48	0.32	19.24
2	Main Gate	51.24	10.43	33.61	0.32	32.64
3	Ash pond	37.05	14.63	27.65	0.85	19.47
4	Ishrpura Village	78.33	18.70	35.76	0.54	43.61
5	Bhadresh Village	74.48	16.50	33.81	0.54	42.26
6	Chuli Village	75.50	18.46	36.71	0.53	44.17

ANNEXURE-VIII

Environmental Expenditure

Actual anticipated - As per WO issued

Environmental Expenditure Detail (FY_2023-24 & 2024-25)			
Sr. No.	**Particulars**	**Amount (Lacs) Rs.**	
		2023-24	**2024-25**
1	Effluent Treatment Plant (ETP)	44.8	46.14
2	Sewage Treatment Plant (STP)	33.2	34.2
3	Green Belt Development	94.0	104.0
4	Continuous Emission Monitoring System (CEMS) 8Nos. & CAAQMS. -(AMC, Spares & Monitoring))	26.03	51.2
5	Continuous Ambient Air Quality Monitoring System (CAAQMS) 6 Nos. -(Rent and Electricity bills for surrounding plant outside installed Three station)	10.80	11.10
6	Environmental Monitoring (annual)& Instruments	14.90	15.65
7	ESP Modification	588.52	0.00
7	Lime Augmentation (Lime dosing Capacity Enhancement)	0.0	4873.29
Total (Lacs) Rs.		**812.25**	**4873.29**

ANNEXURE-IX

JSW Energy (Barmer) Limited
Village & Post : Bhadresh, Post Box No. 30,
Distt : Barmer – 344001 (Rajasthan)
CIN : U21102MH1996PLC185098
Phone : +91 2982 229100
Website : www.jsw.in

Ref: JSWE(B)L/ENV/24-25/024

Date: 05.12.2024

To,

Ministry of Environment Forests & Climate Change,
Integrated Regional Office,
A-209&218, Arunyu Bhuvan, M. G. Road,
Jaipur-304002, Rajasthan.

Sub: Compliance Report-Environmental Clearance for 1080 MW Lignite based Power Plant at Village-Bhadresh, District Barmer.

Dear Sir,

With reference to your letter No. J-13011/58/2006-IA-II (T) dated 20.07.2007 and 19.11.2009, and followed by Letter no. IV/ENV/R/Th-39/679/08/273, we herewith submit half-yearly compliance report, for the period pertaining to **APRIL- 2024 to September- 2024**, for the conditions stipulated in the Environmental clearance issued for this Power Project. Analysis Data has uploaded on JSWEBL website – http://www.jsw.in/energy/about-barmer-plant.

We have taken up the Project activity at proposed site incorporating the conditions stipulated in this environmental clearance.

Thanking you.

For JSW ENERGY (BARMER) Ltd.

Sharad Chandra Totla
GM (Operation & Maintenance)

Enclosure:

1. Compliance Report
2. Water consumption Data -**Annexure I**
3. Effluent Water Data -**Annexure II**
4. Coal Analysis Data -**Annexure III**
5. CEMS & Stack Monitoring DATA -**Annexure IV**
6. Ash Utilization Data -**Annexure V**
7. Noise Monitoring -**Annexure VI**
8. AAQ Monitoring Data -**Annexure VII**
9. Environmental Expenditure - **Annexure VIII**
10. Last Compliance Report -**Annexure IX**

C.C.
The Member Secretary – Central Pollution Control Board, Delhi
The Member Secretary – RSPCB, Jaipur
The Regional Officer – RSPCB, Balotra.