



Ref: JSWE(B)L/ENV/22-23/005

Date: 20.06.2022

To,

The Member Secretary

Rajasthan State Pollution Control Board

4-Institutional Area, Jhalana Doongari,

Jaipur – 302004

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

Ref: Consent to Operate

1. Compliance to CTO for Unit 1 & 2, File No. **F(HDF)/Barmer(Barmer)/9(1)/2016-2017/28-30 Order No. 2020-2021/CPM/5618, Dt: 27/04/2020.**
2. Compliance to CTO for Unit 3 & 4, File No. **F(HDF)/Barmer(Barmer)/9(1)/2016-2017/31-33 Order No: 2020-2021/CPM/5619, Dated: 27/04/2020.**
3. Compliance to CTO for Unit 5 & 6, File No. **F(Tech)/Barmer(Barmer)/3(1)/2008-209/6524-6526; Order No. 2021-2022/CPM/8556, Dt: 10/02/2022.**
4. Compliance to CTO for Unit 7 & 8, File No. **F(Tech)/Barmer(Barmer)/3(1)/2008-209/6527-6529; Order No. 2021-2022/CPM/8557, Dt: 10/02/2022.**

Dear Sir,

With reference to Consent To Operate issued for Unit # 1-2, 3-4, 5-6 and 7-8 for operating 1080 MW (8 x 135 MW) Lignite Based Thermal Plant of M/s JSW ENERGY (BARMER) Ltd, Dist.- Barmer, Rajasthan, we herewith submit half-yearly compliance report, for the period pertaining to **OCTOBER – 2021 to MARCH-2022**, 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 Operation activity at the Power Plant as per the conditions stipulated in this Consent to Operate.

Thanking you.

For JSW ENERGY (BARMER) Ltd.

Vinod Jindal

DGM (Environment & Chemistry)

Enclosure:

1. Compliance Report
2. Stack monitoring Data **_Annexure-I**
3. CEMS Monitoring Data **_Annexure-II**
4. AAQ Monitoring Data **_Annexure-III**
5. Effluent Water Data **_Annexure-IV**
6. STP Treated Water Quality **_Annexure-V**

C.C. The Regional Officer – RSPCB, Balotara.

Compliance to CTO for Unit 1 & 2

File No. F(HDF)/Barmer(Barmer)/9(1)/2016-2017/28-30.

Order No. 2020-2021/CPM/5618, Dt: 27/04/2020.

SN	Condition	Compliance
1	That this Consent to Operate is valid for a period from 01/01/2019 to 31/12/2023	Units are operated during the stipulated period.
2	That this consent is granted for manufacturing / producing following products / by Products or carrying out the following activities or operation/processes or providing following services with capacities of 270 MW.	The 8 x 135 MW lignite based Power project was designed with a total capacity of 1080 MW. As per this Consent, Unit 1 & 2 will be operated to generate 270 MW of power.
3	That this consent to operate is for existing plant, process & capacity and separate consent to establish/operate is required to be taken for any addition/modification/alteration in process or change in capacity or change in fuel	Noted and shall be complied
4	That the quantity of effluent generation and disposal along with mode of disposal for the Treated effluent. a. Domestic 75 KLD b. Industrial 9800 KLD c. Discharge Out Side Premises - NIL	Quantity of waste water generation will not exceed the stipulated. There would be no discharge outside the plant premises. All treated domestic sewage is being used in green belt development.
5	That the sources of air emissions along with pollution control measures and the Emission standards for the prescribed parameters shall be: SO ₂ 600 mg/Nm ³ Particulate Matter 50 mg/Nm ³ NO _x 300 mg/Nm ³ Hg compounds and its 0.03 mg/Nm ³ DG Set (2 x 1000KVA) Acoustic Enclosure CO 150 mg/Nm ³ Particulate Matter 75mg/Nm ³ NO _x 710ppm NMHC 100 mg/Nm ³	Boiler System is designed with Circulating Fluidized Bed Technology – we are adding Lime along with Fuel firing. ESP is designed to comply with Stack Emission standard as stipulated. DG Sets are procured of designed to comply with Environmental Emission standard as stipulated

6	That the domestic sewage shall be treated before disposal so as to conform to the Standards prescribed by the Board as notified under the Environment (protection) Act-1986 for disposal on Land for irrigation. The main parameters for regular monitoring.	Domestic Sewage will be treated and used for green belt development inside the plant area.
7	That the trade effluent shall be treated before disposal so as to conform to the Standards prescribed under the Environment (protection) Act-1986 for disposal into Inland surface water.	The trade effluent is being treated in ETP to comply with the stipulation. Regular monitoring shall be carried out covering the main parameters stipulated.
8	That this consent to operate is valid for power generation of 270 MW capacity with the help of two lignite fired boiler of 440 TPH each.	The 8 x 135 MW lignite based Power project was designed with a total capacity of 1080 MW. As per this Consent, Unit 1 & 2 will be operated to generate 270 MW of power.
9	That the industry shall comply with all the conditions imposed by MoEF, Governments of India vide its office letter no.F.No.J-13011/58/2006-IAI (I) dated 20/07/2007 while issuing EC to your project.	Being complied.
10	That the total capital investment as on 31.03.2018 as per the C. A certificate submitted by the unit is Rs 1623.34 crore which includes the cost of Land, building, plant & machinery and miscellaneous assets only.	Noted.
11	That guidelines on co-processing in cement/ Power/ Steel industries issued by Central Pollution Control Board shall be complied.	Being complied.
12	That the industry shall comply with the emission standards prescribed for Power Plants under the Environment (Protection) Rules, 1986.	Being complied.
13	That the industry shall comply with the emission standards for thermal power plants as notified by MoEF, Govt New Delhi vide gazette notification dated 07/12/2015 and directions issued by Central Pollution Control Board / MOEF from time to time in this regard.	Being Complied.
14	That the industry shall maintain online continuous monitoring system at stack attached to boiler to monitor the emission level of particulate matter (PM), SO ₂ , NO _x , Hg along with for effluents and connectivity of the same shall be ensured with RPCB/CPCB server whenever plant is operated.	All these stacks being equipped with Continuous Emission Monitoring Systems (CEMS) and connected to PCB Servers, to ensure the emission of PM, SO ₂ , NO _x to be within prescribed levels.

15	That the industry shall comply with the guidelines of August, 2018 issued by CPCB for "Continuous Emission Monitoring Systems".	Being Complied.
16	That industry shall maintain adequate stack height and acoustic enclosures at the two DG sets of 1000 KVA each capacity.	DG Stack equipped by acoustic enclosure with adequate height.
17	That safe & adequate infrastructure facility in accordance with emission regulation Part-III issued by the Central Pollution Control Board shall be maintained at the stack attached to the boiler & DG Sets for stack emission monitoring.	Being complied.
18	That no other fuel except lignite shall be used in boiler of the power plant without prior permission from the State Board.	Noted shall be complied.
19	That no additional source of air emission shall be installed without prior consent from the State Board.	Noted shall be complied.
20	That all the raw materials (Lignite etc) shall be stored in closed covered shed and storage facility for coal shall be further strengthened & coal shall not be stored in open areas.	Coal yard equipped with Dust Extraction & suppression Systems at required location and water spray system also equipped to diffuse and suppress any fugitive emissions.
21	That power supply to the production/process shall be interlocked with the pollution control equipment's that in the event of non-functioning of the pollution equipment the production process stops automatically.	CEMS and AQMS connected to PCB server and any non-functioning of equipment's sets off a system alarm and action taken on top priority to rectify the same.
22	That total fresh water requirement from Indira Gandhi Canal shall be 21750KLD(boiler/cooling-21000 KLD+Domestic-150 KLD + Industrial Process-600 KLD) and no ground water shall be abstracted from the ground without prior permission from the Central Ground Water Authority (CGWA).	Being complied.
23	That the industry shall maintain zero discharge status outside the premises. No effluent shall be discharged outside the premises of the industry under any circumstances.	All the effluent will be used inside the plant premises for green belt, road dust suppression and Ash Pond Dust Suppression.
24	That suitable measure for rain water harvesting for artificial recharge of ground water shall be taken.	Rain Water Harvesting is conceptualized in the design of the Plant and a small RH tank is prepared

25	That suitable flow measuring devices/meters on the intake source of water, inlet and outlet of effluent treatment/sewage treatment plant shall be installed and maintained. Daily record of water consumption, effluent generation and its treatment and utilization shall be maintained.	Water is being drawn from IGNP canal - same has metered. Flow meters provided at Outlet of STP and ETP. Water mass balance record maintained on daily basis
26	That the industry shall submit time bound action plan for installation of FGD.	The Project is based on Circulating Fluidized Base Combustion technology for fuel firing and involves injection of lime, which absorbs Sulphur. However space provision has been made for FGD.
27	The domestic effluent shall be treated up to prescribed standards and shall be used for plantation/ green belt development within or outside of the premises.	Treated Domestic Sewage is being treated and used for in house plantation/ green belt development.
28	That the Ministry of Environment and Forest, Govt. of India, Notification dated 14/09/1999 (amended till date) related to the fly ash management, shall be complied and monthly compliance reports shall be submitted to the State Board.	Ash will be utilized as per MOEF guidelines and reported.
29	That the plantation in at least 33% of total area of the plant premises in and around the plant shall be carried out & maintained.	Complied.
30	That the industry shall obtain Environmental Clearance from competent authority under EIA Notification dated 14.09.2016 for any such activity which attracts Environmental Clearance under EIA Notification dated 14.09.2006.	Noted shall be complied
31	That the industry shall comply with the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and record of daily hazardous waste generation and its disposal shall be maintained.	Being Complied
32	That this Consent to Operate shall be subjected to compliance of any direction or order passed by NGT/ Hon'ble Court of law in the matter.	Being complied
33	That the industry shall not use pet coke/furnace oil as fuel in the power plant in compliance to the order dated 24/10/2017 of Hon'ble Supreme Court, wherein ban has been imposed on the use of pet coke and furnace oil in the State of Rajasthan.	Being complied

34	That all the recommendations made in the Charter of Corporate Responsibility for Environment Protection for Thermal power plants shall be implemented.	Being complied
35	That cemented roads shall be provided and maintained inside the premises to minimize the fugitive emissions due to vehicular movements.	RCC roads provided at all required location within the plant to control fugitive emissions.
36	That the industry shall also ensure the compliance of all the conditions of consent order no.2016-2017/HDF/2505 dt 03.01.2017.	Being Complied
37	That the industry shall submit the half yearly compliance report of all the above conditions to the State Board.	Noted shall be complied.
38	That, notwithstanding anything provided hereinabove, the State Board shall have power and reserves its right, as contained under section 27(2) of the Water Act and under section 21(6) of the Air Act to review anyone or all the conditions imposed here in above and to make such variation as it deemed fit for the purpose of Air Act & Water Act.	Being complied
39	That the grant of this Consent to Operate is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.	Noted shall be complied
40	That the grant of this Consent to Operate shall not, in any way, adversely affect or jeopardize the legal proceeding, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.	Being complied

Compliance to CTO for Unit 3 & 4

File No. F(HDF)/Barmer(Barmer)/9(1)/2016-2017/31-33

Order No: 2020-2021/CPM/5619, Dated: 27/04/2020

SN	Condition	Compliance
1	That this Consent to Operate is valid for a period from 01/12/2018 to 30/11/2023	Units are operated during the stipulated period.
2	That this consent is granted for manufacturing / producing following products / by Products or carrying out the following activities or operation/processes or providing following services with capacities of 270 MW.	The 8 x 135 MW lignite based Power project was designed with a total capacity of 1080 MW. As per this Consent, Unit 3 & 4 will be operated to generate 270 MW of power.
3	That this consent to operate is for existing plant, process & capacity and separate consent to establish/operate is required to be taken for any addition/modification/alteration in process or change in capacity or change in fuel	Noted and shall be complied
4	That the quantity of effluent generation and disposal along with mode of disposal for the Treated effluent. a. Domestic 75 KLD b. Industrial 9800 KLD c. Discharge Out Side Premises - NIL	Quantity of waste water generation will not exceed the stipulated. There would be no discharge outside the plant premises. All treated domestic sewage is being used in green belt development.
5	That the sources of air emissions along with pollution control measures and the Emission standards for the prescribed parameters shall be: SO ₂ 600 mg/Nm ³ Particulate Matter 50 mg/Nm ³ NO _x 300 mg/Nm ³ Hg compounds and its 0.03 mg/Nm ³ DG Set (2 x 1000KVA) Acoustic Enclosure CO 150 mg/Nm ³ Particulate Matter 75mg/Nm ³ NO _x 710ppm NMHC 100 mg/Nm ³	Boiler System is designed with Circulating Fluidized Bed Technology – we are adding Lime along with Fuel firing. ESP is designed to comply with Stack Emission standard as stipulated. DG Sets are procured of designed to comply with Environmental Emission standard as stipulated

6	That the Stage II (Unit- III & IV) plant will comply with the standards as prescribed vide MOEF notification no GSR 826(E) dated 16 th November, 2009 with respect to national Ambient Air Quality Standards.	Being complied.
7	That the domestic sewage shall be treated before disposal so as to conform to the Standards prescribed by the Board as notified under the Environment (protection) Act-1986 for disposal on Land for irrigation. The main parameters for regular monitoring.	Domestic Sewage will be treated and used for green belt development inside the plant area.
8	That the trade effluent shall be treated before disposal so as to conform to the Standards prescribed under the Environment (protection) Act-1986 for disposal into Inland surface water.	The trade effluent is being treated in ETP to comply with the stipulation. Regular monitoring shall be carried out covering the main parameters stipulated.
9	That this consent to operate is valid for power generation of 270 MW capacity with the help of two lignite fired boiler of 440 TPH each.	The 8 x 135 MW lignite based Power project was designed with a total capacity of 1080 MW. As per this Consent, Unit 1 & 2 will be operated to generate 270 MW of power.
10	That the industry shall comply with all the conditions imposed by MoEF, Governments of India vide its office letter no.F.No.J-13011/58/2006-IAI (I) dated 20/07/2007 while issuing EC to your project.	Being complied.
11	That the total capital investment as on 31.03.2018 as per the C. A certificate submitted by the unit is Rs 1352.79 crore which includes the cost of Land, building, plant & machinery and miscellaneous assets only.	Noted.
12	That guidelines on co-processing in cement/ Power/ Steel industries issued by Central Pollution Control Board shall be complied.	Noted - Shall be complied.
13	That the industry shall comply with the emission standards prescribed for Power Plants under the Environment (Protection) Rules, 1986.	Being complied.
14	That the industry shall comply with the emission standards for thermal power plants as notified by MoEF, Gov New Delhi vide gazette notification dated 07/12/2015 and directions issued by Central Pollution Control Board / MOEF from time to time in this regard.	Being Complied.

15	That the industry shall maintain online continuous monitoring system at stack attached to boiler to monitor the emission level of particulate matter(PM),SO ₂ ,NO _x ,Hg along with for effluents and connectivity of the same shall be ensured with RPCB/CPCB server whenever plant is operated.	All these stacks being equipped with Continuous Emission Monitoring Systems (CEMS) and connected to PCB Servers, to ensure the emission of PM, SO ₂ , NO _x to be within prescribed levels.
16	That the industry shall comply with the guidelines of August, 2018 issued by CPCB for "Continuous Emission Monitoring Systems".	Being Complied.
17	That industry shall maintain adequate stack height and acoustic enclosures at the two DG sets of 1000 KVA each capacity.	DG Stack equipped by acoustic enclosure with adequate height.
18	That safe & adequate infrastructure facility in accordance with emission regulation Part-III issued by the Central Pollution Control Board shall be maintained at the stack attached to the boiler & DG Sets for stack emission monitoring.	Being complied.
19	That no other fuel except lignite shall be used in boiler of the power plant without prior permission from the State Board.	Noted shell be complied.
20	That no additional source of air emission shall be installed without prior consent from the State Board.	Noted shell be complied.
21	That all the raw materials (coal etc.) shall be stored in closed covered shed and storage facility for coal shall be further strengthened & coal shall not be stored in open areas.	Coal yard equipped with Dust Extraction & suppression Systems at required location and water spray system also equipped to diffuse and suppress any fugitive emissions.
22	That power supply to the production/process shall be interlocked with the pollution control equipment's that in the event of non-functioning of the pollution equipment the production process stops automatically.	CEMS and AQMS connected to PCB server and any non-functioning of equipment's sets off a system alarm and action taken on top priority to rectify the same.
23	That total fresh water requirement from Indira Gandhi Canal shall be 21750KLD(boiler/cooling-21000 KLD+Domestic-150 KLD + Industrial Process-600 KLD) and no ground water shall be abstracted from the ground without prior permission from the Central Ground Water Authority (CGWA).	Being complied.
24	That the industry shall maintain zero discharge status outside the premises. No effluent shall be discharged outside the premises of the industry under any circumstances.	All the effluent will be used inside the plant premises for green belt, road dust suppression and Ash Pond Dust Suppression.

25	That suitable measure for rain water harvesting for artificial recharge of ground water shall be taken.	Rain Water Harvesting is conceptualized in the design of the Plant and a small RH tank is prepared
26	That suitable flow measuring devices/meters on the intake source of water, inlet and outlet of effluent treatment/sewage treatment plant shall be installed and maintained. Daily record of water consumption, effluent generation and its treatment and utilization shall be maintained.	Water is being drawn from IGNP canal - same has metered. Flow meters provided at Outlet of STP and ETP. Water mass balance record maintained on daily basis
27	That the industry shall submit time bound action plan for installation of FGD.	The Project is based on Circulating Fluidized Base Combustion technology for fuel firing and involves injection of lime, which absorbs Sulphur. However space provision has been made for FGD.
28	The domestic effluent shall be treated up to prescribed standards and shall be used for plantation/ green belt development within or outside of the premises.	Treated Domestic Sewage is being treated and used for in house plantation/ green belt development.
29	That the Ministry of Environment and Forest, Govt. of India, Notification dated 14/09/1999 (amended till date) related to the fly ash management, shall be complied and monthly compliance reports shall be submitted to the State Board.	Ash will be utilized as per MOEF guidelines and reported.
30	That the plantation in at least 33% of total area of the plant premises in and around the plant shall be carried out & maintained.	Complied.
31	That the industry shall obtain Environmental Clearance from competent authority under EIA Notification dated 14.09.2016 for any such activity which attracts Environmental Clearance under EIA Notification dated 14.09.2006.	Noted shall be complied
32	That the industry shall comply with the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and record of daily hazardous waste generation and its disposal shall be maintained.	Being Complied
33	That this Consent to Operate shall be subjected to compliance of any direction or order passed by NGT/ Hon'ble Court of law in the matter.	Being complied

34	That the industry shall not use pet coke/furnace oil as fuel in the power plant in compliance to the order dated 24/10/2017 of Hon'ble Supreme Court, wherein ban has been imposed on the use of pet coke and furnace oil in the State of Rajasthan.	Being complied
35	That all the recommendations made in the Charter of Corporate Responsibility for Environment Protection for Thermal power plants shall be implemented.	Being complied
36	That cemented roads shall be provided and maintained inside the premises to minimize the fugitive emissions due to vehicular movements.	RCC roads provided at all required location within the plant to control fugitive emissions.
37	That the industry shall also ensure the compliance of all the conditions of consent order no. 2016-2017/HDF/2506 dt 04.01.2017.	Being Complied
38	That the industry shall submit the half yearly compliance report of all the above conditions to the State Board.	Being complied.
39	That, notwithstanding anything provided hereinabove, the State Board shall have power and reserves its right, as contained under section 27(2) of the Water Act and under section 21(6) of the Air Act to review anyone or all the conditions imposed here in above and to make such variation as it deemed fit for the purpose of Air Act & Water Act.	Being complied
40	That the grant of this Consent to Operate is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.	Noted shall be complied
41	That the grant of this Consent to Operate shall not, in any way, adversely affect or jeopardize the legal proceeding, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.	Being complied

Compliance to CTO for Unit 5 & 6

File No. F(HDF)/Barmer(Barmer)/3(1)/2008-2009/6524-6526

Order No. 2021-2022/CPM/8556, Dt: 10/02/2022

SN	Condition	Compliance
1	That this Consent to Operate is valid for a period from 01/11/2021 to 31/10/2026	Units are operated during the stipulated period. Renewal application has been applied as per norms.
2	That this consent is granted for manufacturing / producing following products / by Products or carrying out the following activities or operation/processes or providing following services with capacities of 270 MW.	The 8 x 135 MW lignite based Power project was designed with a total capacity of 1080 MW. Units are operated during the stipulated period. Renewal application has been applied as per norms. As per this Consent, Unit 5 & 6 only will be operated to generate 270 MW of power.
3	That this consent to operate is for existing plant, process & capacity and separate consent to establish/operate is required to be taken for any addition/modification/alteration in process or change in capacity or change in fuel.	Noted and shall be complied
4	That the quantity of effluent generation and disposal along with mode of disposal for the Treated effluent. a. Domestic 75 KLD b. Industrial 9800 KLD c. Discharge Out Side Premises - NIL	Quantity of waste water generation will not exceed the stipulated. There would be no discharge outside the plant premises. All treated domestic sewage is being used in green belt development.
5	That the sources of air emissions along with pollution control measures and the Emission standards for the prescribed parameters shall be: SO ₂ 600 mg/Nm ³ Particulate Matter 50 mg/Nm ³ NO _x 450 mg/Nm ³ Hg compounds and its 0.03 mg/Nm ³ DG Set -1000KVA Acoustic Enclosure NO _x 710 ppm NMHC 100 mg/Nm ³ Particulate Matter 75 mg/Nm ³ CO 150 mg/Nm ³	Boiler System is designed with Circulating Fluidized Bed Technology – we are adding Lime along with Fuel firing. ESP is designed to comply with Stack Emission standard as stipulated. DG Sets are procured of designed to comply with Environmental Emission standard as stipulated

6	That the domestic sewage shall be treated before disposal so as to conform to the Standards prescribed by the Board as notified under the Environment (protection) Act-1986 for disposal on Land for irrigation. The main parameters for regular monitoring.	Domestic Sewage will be treated and used for green belt development irrigation.
7	That the trade effluent shall be treated before disposal so as to conform to the Standards prescribed under the Environment (protection) Act-1986 for disposal into Inland surface water.	The trade effluent is being treated in ETP to comply with the stipulation. Regular monitoring shall be carried out covering the main parameters stipulated.
8	That the industry shall obtain all the necessary permissions from concern authority and district administration Barmer for operation of 270 MW lignite coal based.	Noted – Being Complied.
9	That this consent to operate is being issued for production capacity of 2 x 135 MW (Unit 5 & 6) thermal plant	Noted – Being Complied.
10	That the total project cost of unit 5 & 6 is Rs. 1362.89 Crore. The industry shall take/obtain modification in consent to operate after paying fee as applicable.	Noted – Being Complied for Unit 5 & 6.
11	That the industry shall comply with all the conditions imposed by MoEF, Governments of India vide its office letter no.F.No.J-13011/58/2006- IAll(I)dated20/07/2007 while issuing EC to your project & also amendment made vide letter dated 19.11.2009 thereafter.	Being complied.
12	That all the conditions imposed vide CPCB letter noB-33014/07/2017-2018/IPC-II/TPP/15934 dated 11.12.2017 shall be complied in future in letter & spirit.	Being Complied.
13	That That all the conditions imposed vide letter no F (HDF)/Barmer(Barmer)/12(1)/2017-2018/1223-1225 dated 25/06/2019 shall be complied.	Being Complied.
14	That the charter of Corporate Responsibility for Environment Protection specified for power plants shall be complied	Being Complied.
15	That the Industry will comply with the standards as prescribed vide MOEF notification No. GSR 826(E) dated 16 th November 2009 with respect to National Ambient Air Quality Standards.	Being Complied.

16	That the industry shall provide & maintain adequate dust collection and Extraction system to control fugitive dust emission at coal crusher and coal Transfer points and coal handling and storage areas.	Dust Extraction & suppression Systems have been implemented at required location in lignite handling location. And road coal dust collector (mobile) unit is engaged at coal yard and nearby area to collect the same.
17	That the particulate emissions from stack of various sections of power plant shall Not exceed 50 mg/NM3	ESP is designed to comply with Stack Emission standard as stipulated with continuous emission monitoring system is being installed for the monitoring of flue emissions (As per MOEF issued a notification G.S.R. 243(E)-Environment (Protection) Amendment Rules, 2021 dated 31-03-202. Our plant falls under Category C and the timeline provided by MOEF for this Category has been provided as 31th Dec 2024 to comply PM emission limits as per new norms).
18	That the industry shall maintain opacity meter with each boiler stack to monitor the emission level of particulate matter. The monthly observation will be submitted to R.O. Office along with the reason / clarification for any recorded violation of the prescribed standards.	Being Complied.
19	The Low NOx burners shall be installed at boiler feedingsystem.	Boiler system is designed on CFBC Technology in which lime is added to furnace for adsorb SOx and NOx generated during combustion of fuel.
20	That the level of SPM within distance 3 -10 M from dust generating source/plant Shall not exceed to 600 mg/NM3 in ambient air.	Necessary measures shall be taken to comply with the stipulation. All the locations are under monitoring.
21	That for the control fugitive emission guidelines / code of practice as issued by CPCB will be followed.	Necessary measures shall be taken to comply with the stipulation.
22	That the project proponent shall undertake measures and ensure that no fugitive fly ash emissions take place at any point of time.	Necessary measures shall be taken to comply with the stipulation.
23	That no industrial effluent will be discharged from the factory premises in to a Stream or well or sewer or land and the effluent generated from captive power Plant shall be used for ash quenching control of fugitive emission and plantation.	All the effluent will be used inside the plant premises for green belt, road dust suppression and Ash Pond Dust Suppression.
24	That the industrial effluents generated from R.O. rejects, DM plant & cooling tower shall be neutralized & be used for plantation, horticulture and ash quenching purpose. No industrial effluent will be discharged inside or outside the factory premises into a stream or well or sewer or	That the industrial effluent generated from D.M. rejects & cooling Tower is being used for cooling proposes after taking it into Water circulation tank.

25	The domestic effluent shall be treated up to prescribed standards and shall be Used for plantation/green belt development within the premises.	Domestic Sewage will be treated and using for in house plantation/ green belt development.
26	Ash pond shall be lined with HDPE/LDPE lining or any suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	The ash pond is lined at the bottom with 0.5 mm thick HDPE geo-membrane, to avoid any leachate to the ground.
27	That the total fresh water requirement for unit-V & VI shall not exceed 21750.00 KLD (boiler/cooling-21000KLD + domestic -150KLD + industrial purpose- 600 KLD) which shall be met from ground water i.e. IGNP Mohangarh.	Being complied.
28	That no ground water shall be abstracted without prior permission from the State Board and the Central Ground Water Authority.	Being complied.
29	That suitable flow measuring devices/meters on the intake source of water, inlet and outlet effluent treatment / sewage treatment plant shall be installed and Maintained. Daily record of water consumption, effluent generation and its Treatment and utilization shall be maintained.	Being Complied.
30	That the industry shall undertake suitable measures for rain water harvesting for artificial recharge of ground water.	Rain Water Harvesting is conceptualized in the design of the Plant and a small RH tank is prepared
31	The industry shall comply with the MOEF, Government of India, Notification date: 14th September 1999 with till the date amendments relating to fly ash Management and shall provide relevant details to the state Board, MoEF, Government of India. and as per the Notification dated 25/01/2016 issued by MoEF & CC, the industry shall upload on their website the details of stock of each type of ash available with them and thereafter shall update the stock position at least once a Month. The industry shall also ensure compliance of the other provisions of the aforesaid Notification.	Ash will be utilized as per MOEF guidelines andreported.
32	That the unit shall install flow meters at inlet and outlet of STP and at outlet of ETP.	Being Complied
33	That the unit shall submit details of solid waste generated from the plant to Regional Officer of the State Board, Balotra.	Being Complied

34	That the Thermal power plant shall meet the limits of Boiler (specified in condition no.5), as per the Notification dated 07.12.2015 issued by the Ministry of Environment, Forest and Climate Change, Government of India.	Being Complied
35	That industry shall comply with the provisions of Hazardous & other Waste(Management & Transboundary movement) Rules, 2016 and record of daily hazardous waste generation and its disposal shall be maintained.	Being Complied
36	That the industry shall provide acoustic enclosure and adequate stack height of minimum 30 meters with one D.G. set of 1000 KVA.	Acoustic enclosure and adequate stack height Provided
37	That the Thermal power plant shall comply with water consumption limit as specified in the Notification dated 07/12/2015 issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC).	Being Complied
38	That the industry shall carryout effluent sampling/stack monitoring/ambient air quality monitoring and submit quarterly analysis report from the State Board laboratory/ laboratory recognized by Ministry of Environment & Forests (MoE&F), Government of India.	Being Complied
39	That the industry shall comply with the standards as prescribed vide MOEF notification no. GSR 826(E) dated 16th November, 2009 with respect to National Ambient Air Quality.	Being Complied
40	That the industry shall ensure compliance of ambient air quality standard in respect of noise as prescribed under Environment (Protection) Act & Rules made therein.	Being Complied.
41	That the industry shall comply with the provisions of the Public Liability Insurance Act, 1991.	Being Complied.
42	That the industry shall complete all the works in the stipulated time as per your commitment letter dated 1.2.2022, failing which bank guarantee of Rs.20,000/- shall be forfeited without further notice in the matter.	Work has been completed and informed to Regional Office to release the BG.
43	That the industry shall undertake suitable measures for rain water harvesting for artificial recharge of ground water.	Rain Water Harvesting is conceptualized in the design of the Plant and a small RH tank is prepared

44	That cemented roads shall be provided & maintained inside the premises to minimize the fugitive emissions due to vehicular movements.	Inside the premises all interconnected road has been constructed by Cemented & Bituminous and the same maintained well.
45	That the plantation in at least 33% of total area of the project in and around the cement plant shall be carried out & maintained	Being Complied
46	That this consent to operate shall be subject to compliance of any direction or order passed by NGT/Hon'ble Court of Law in the matter.	Noted – Being Complied.
48	That, notwithstanding anything provided hereinabove, the state board shall have power and reserves the right, as contained under section 27(2) of the water Act and under section 21(6) of the Air Act to review anyone or all the conditions imposed here in above and to make such variation as it deemed fit for the purpose of air act. & water act	Being Complied
49	That the grant of this consent to operate is issued from the environmental angle only, and does not above absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with the conditions laid down in all other laws for the time- being in force, rests with the industry/unit/project proponent.	Being Complied
50	That the Project Proponent shall comply with provisions of the E-waste (Management) Rules, 2016 and ensure that e-waste generated by them is channelized through collection centre or dealer of authorized producer or dismantler or recycler or through designated take back service provider of the producer to authorized dismantler or recycler.	Being Complied
51	That the Project Proponent shall maintain record of e-waste generated by them in Form-2 and make such records available for scrutiny by the board	Being Complied
52	That the Project Proponent shall file annual returns in Form-3, to the Board on or before the 30th day of June following the financial year to which that return relates	Being Complied

53	That the transportation of e-waste shall be carried out as per the manifest system whereby the transporter shall be required to carry a document (three copies) prepared by the sender, giving the details as per Form-6.	Being Complied
54	That the Project Proponent shall comply with provisions of the Batteries (Management and Handling) Rules, 2001 (as amended) and submit half yearly returns (as bulk consumer, importer, auctioneer, recycler as the case may be) to the State Board as provided under Rule 10 (2) (ii) of the Battery (Management and Handling) Rules, 2001 (as amended). In	Being Complied
55	That the record of batteries purchased and sold/ returned to registered dealers and/ or authorized recyclers shall be maintained and made available to the officers of the Board during inspections.	Being Complied

Compliance to CTO for Unit 7 & 8

File No. F(Tech)/Barmer(Barmer)/3(1)/2008-2009/6527-6529

Order No. 2021-2022/CPM/8557, Dt: 10/02/2022

SN	Condition	Compliance
1	That this Consent to Operate is valid for a period from 01/11/2021 to 31/10/2026	Units are operated during the stipulated period. Renewal application has been applied as per norms.
2	That this consent is granted for manufacturing / producing following products / by Products or carrying out the following activities or operation/processes or providing following services with capacities of 270 MW.	The 8 x 135 MW lignite based Power project was designed with a total capacity of 1080 MW. Units are operated during the stipulated period. Renewal application has been applied as per norms. As per this Consent, Unit 7 & 8 only will be operated to generate 270 MW of power.
3	That this consent to operate is for existing plant, process & capacity and separate consent to establish/operate is required to be taken for any addition/modification/alteration in process or change in capacity or change in fuel.	Noted and shall be complied
4	That the quantity of effluent generation and disposal along with mode of disposal for the Treated effluent. a. Domestic 75 KLD b. Industrial 9800 KLD c. Discharge Out Side Premises - NIL	Quantity of waste water generation will not exceed the stipulated. There would be no discharge outside the plant premises. All treated domestic sewage is being used in green belt development.
5	That the sources of air emissions along with pollution control measures and the Emission standards for the prescribed parameters shall be: SO ₂ 600 mg/Nm ³ Particulate Matter 50 mg/Nm ³ NO _x 450 mg/Nm ³ Hg compounds and its 0.03 mg/Nm ³ DG Set -1000KVA Acoustic Enclosure NO _x 710 ppm NMHC 100 mg/Nm ³ Particulate Matter 75 mg/Nm ³ CO 150 mg/Nm ³	Boiler System is designed with Circulating Fluidized Bed Technology – we are adding Lime along with Fuel firing. ESP is designed to comply with Stack Emission standard as stipulated. DG Sets are procured of designed to comply with Environmental Emission standard as stipulated

6	That the domestic sewage shall be treated before disposal so as to conform to the Standards prescribed by the Board as notified under the Environment (protection) Act-1986 for disposal on Land for irrigation. The main parameters for regular monitoring.	Domestic Sewage will be treated and used for green belt development irrigation.
7	That the trade effluent shall be treated before disposal so as to conform to the Standards prescribed under the Environment (protection) Act-1986 for disposal into Inland surface water.	The trade effluent is being treated in ETP to comply with the stipulation. Regular monitoring shall be carried out covering the main parameters stipulated.
8	That the industry shall obtain all the necessary permissions from concern authority and district administration Barmer for operation of 270 MW lignite coal based.	Noted – Being Complied.
9	That this consent to operate is being issued for production capacity of 2 x 135 MW (Unit 5 & 6) thermal plant	Noted – Being Complied.
10	That the total project cost of unit 7 & 8 is Rs. 1090.32 Crore. The industry shall take/obtain modification in consent to operate after paying fee as applicable.	Noted – Being Complied for Unit 7 & 8.
11	That the industry shall comply with all the conditions imposed by MoEF, Governments of India vide its office letter no.F.No.J-13011/58/2006- IAll(I)dated20/07/2007 while issuing EC to your project & also amendment made vide letter dated 19.11.2009 thereafter.	Being complied.
12	That all the conditions imposed vide CPCB letter noB-33014/07/2017-2018/IPC-II/TPP/15934 dated 11.12.2017 shall be complied in future in letter & spirit.	Being Complied.
13	That That all the conditions imposed vide letter no F (HDF)/Barmer(Barmer)/12(1)/2017-2018/1223-1225 dated 25/06/2019 shall be complied.	Being Complied.
14	That the charter of Corporate Responsibility for Environment Protection specified for power plants shall be complied	Being Complied.
15	That the Industry will comply with the standards as prescribed vide MOEF notification No. GSR 826(E) dated 16 th November 2009 with respect to National Ambient Air Quality Standards.	Being Complied.

16	That the industry shall provide & maintain adequate dust collection and Extraction system to control fugitive dust emission at coal crusher and coal Transfer points and coal handling and storage areas.	Dust Extraction & suppression Systems have been implemented at required location in lignite handling location. And road coal dust collector (mobile) unit is engaged at coal yard and nearby area to collect the same.
17	That the particulate emissions from stack of various sections of power plant shall Not exceed 50 mg/NM3	ESP is designed to comply with Stack Emission standard as stipulated with continuous emission monitoring system is being installed for the monitoring of flue emissions (As per MOEF issued a notification G.S.R. 243(E)-Environment (Protection) Amendment Rules, 2021 dated 31-03-202. Our plant falls under Category C and the timeline provided by MOEF for this Category has been provided as 31th Dec 2024 to comply PM emission limits as per new norms).
18	That the industry shall maintain opacity meter with each boiler stack to monitor the emission level of particulate matter. The monthly observation will be submitted to R.O. Office along with the reason / clarification for any recorded violation of the prescribed standards.	Being Complied.
19	The Low NOx burners shall be installed at boiler feedingsystem.	Boiler system is designed on CFBC Technology in which lime is added to furnace for adsorb SOx and NOx generated during combustion of fuel.
20	That the level of SPM within distance 3 -10 M from dust generating source/plant Shall not exceed to 600 mg/NM3 in ambient air.	Necessary measures shall be taken to comply with the stipulation. All the locations are under monitoring.
21	That for the control fugitive emission guidelines / code of practice as issued by CPCB will be followed.	Necessary measures shall be taken to comply with the stipulation.
22	That the project proponent shall undertake measures and ensure that no fugitive fly ash emissions take place at any point of time.	Necessary measures shall be taken to comply with the stipulation.
23	That no industrial effluent will be discharged from the factory premises in to a Stream or well or sewer or land and the effluent generated from captive power Plant shall be used for ash quenching control of fugitive emission and plantation.	All the effluent will be used inside the plant premises for green belt, road dust suppression and Ash Pond Dust Suppression.
24	That the industrial effluents generated from R.O. rejects, DM plant & cooling tower shall be neutralized & be used for plantation, horticulture and ash quenching purpose. No industrial effluent will be discharged inside or outside the factory premises into a stream or well or sewer or	That the industrial effluent generated from D.M. rejects & cooling Tower is being used for cooling proposes after taking it into Water circulation tank.

25	The domestic effluent shall be treated up to prescribed standards and shall be Used for plantation/green belt development within the premises.	Domestic Sewage will be treated and using for in house plantation/ green belt development.
26	Ash pond shall be lined with HDPE/LDPE lining or any suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	The ash pond is lined at the bottom with 0.5 mm thick HDPE geo-membrane, to avoid any leachate to the ground.
27	That the total fresh water requirement for unit-VII & VIII shall not exceed 21750.00 KLD (boiler/cooling-21000KLD + domestic -150KLD + industrial purpose- 600 KLD) which shall be met from ground water i.e. IGNP Mohangarh.	Being complied.
28	That no ground water shall be abstracted without prior permission from the State Board and the Central Ground Water Authority.	Being complied.
29	That suitable flow measuring devices/meters on the intake source of water, inlet and outlet effluent treatment / sewage treatment plant shall be installed and Maintained. Daily record of water consumption, effluent generation and its Treatment and utilization shall be maintained.	Being Complied.
30	That the industry shall undertake suitable measures for rain water harvesting for artificial recharge of ground water.	Rain Water Harvesting is conceptualized in the design of the Plant and a small RH tank is prepared
31	The industry shall comply with the MOEF, Government of India, Notification date: 14th September 1999 with till the date amendments relating to fly ash Management and shall provide relevant details to the state Board, MoEF, Government of India. and as per the Notification dated 25/01/2016 issued by MoEF & CC, the industry shall upload on their website the details of stock of each type of ash available with them and thereafter shall update the stock position at least once a Month. The industry shall also ensure compliance of the other provisions of the aforesaid Notification.	Ash will be utilized as per MOEF guidelines andreported.
32	That the unit shall install flow meters at inlet and outlet of STP and at outlet of ETP.	Being Complied
33	That the unit shall submit details of solid waste generated from the plant to Regional Officer of the State Board, Balotra.	Being Complied

34	That the Thermal power plant shall meet the limits of Boiler (specified in condition no.5), as per the Notification dated 07.12.2015 issued by the Ministry of Environment, Forest and Climate Change, Government of India.	Being Complied
35	That industry shall comply with the provisions of Hazardous & other Waste(Management & Transboundary movement) Rules, 2016 and record of daily hazardous waste generation and its disposal shall be maintained.	Being Complied
36	That the industry shall provide acoustic enclosure and adequate stack height of minimum 30 meters with one D.G. set of 1000 KVA.	Acoustic enclosure and adequate stack height Provided
37	That the Thermal power plant shall comply with water consumption limit as specified in the Notification dated 07/12/2015 issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC).	Being Complied
38	That the industry shall carryout effluent sampling/stack monitoring/ambient air quality monitoring and submit quarterly analysis report from the State Board laboratory/ laboratory recognized by Ministry of Environment & Forests (MoE&F), Government of India.	Being Complied
39	That the industry shall comply with the standards as prescribed vide MOEF notification no. GSR 826(E) dated 16th November, 2009 with respect to National Ambient Air Quality.	Being Complied
40	That the industry shall ensure compliance of ambient air quality standard in respect of noise as prescribed under Environment (Protection) Act & Rules made therein.	Being Complied.
41	That the industry shall comply with the provisions of the Public Liability Insurance Act, 1991.	Being Complied.
42	That the industry shall complete all the works in the stipulated time as per your commitment letter dated 1.2.2022, failing which bank guarantee of Rs.20,000/- shall be forfeited without further notice in the matter.	Work has been completed and informed to Regional Office to release the BG.
43	That the industry shall undertake suitable measures for rain water harvesting for artificial recharge of ground water.	Rain Water Harvesting is conceptualized in the design of the Plant and a small RH tank is prepared

44	That cemented roads shall be provided & maintained inside the premises to minimize the fugitive emissions due to vehicular movements.	Inside the premises all interconnected road has been constructed by Cemented & Bituminous and the same maintained well.
45	That the plantation in at least 33% of total area of the project in and around the cement plant shall be carried out & maintained	Being Complied
46	That this consent to operate shall be subject to compliance of any direction or order passed by NGT/Hon'ble Court of Law in the matter.	Noted – Being Complied.
48	That, notwithstanding anything provided hereinabove, the state board shall have power and reserves the right, as contained under section 27(2) of the water Act and under section 21(6) of the Air Act to review anyone or all the conditions imposed here in above and to make such variation as it deemed fit for the purpose of air act. & water act	Being Complied
49	That the grant of this consent to operate is issued from the environmental angle only, and does not above absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with the conditions laid down in all other laws for the time- being in force, rests with the industry/unit/project proponent.	Being Complied
50	That the Project Proponent shall comply with provisions of the E-waste (Management) Rules, 2016 and ensure that e-waste generated by them is channelized through collection centre or dealer of authorized producer or dismantler or recycler or through designated take back service provider of the producer to authorized dismantler or recycler.	Being Complied
51	That the Project Proponent shall maintain record of e-waste generated by them in Form-2 and make such records available for scrutiny by the board	Being Complied
52	That the Project Proponent shall file annual returns in Form-3, to the Board on or before the 30th day of June following the financial year to which that return relates	Being Complied

53	That the transportation of e-waste shall be carried out as per the manifest system whereby the transporter shall be required to carry a document (three copies) prepared by the sender, giving the details as per Form-6.	Being Complied
54	That the Project Proponent shall comply with provisions of the Batteries (Management and Handling) Rules, 2001 (as amended) and submit half yearly returns (as bulk consumer, importer, auctioneer, recycler as the case may be) to the State Board as provided under Rule 10 (2) (ii) of the Battery (Management and Handling) Rules, 2001 (as amended). In	Being Complied
55	That the record of batteries purchased and sold/ returned to registered dealers and/ or authorized recyclers shall be maintained and made available to the officers of the Board during inspections.	Being Complied

Compliance Status of Thermal Plant – Charter on Corporate Responsibility for Environmental Protection

Sr. No.	CREP points for Thermal Plant	Compliance status
1	Implementation of Environmental Standards (emission & effluent) in non-compliant* Power Plants (31 & 27)	Project come up in 2006 – Not Applicable
	- Submission of action plan June 30, 2003	
	- Placement of order for Pollution of control equipment September, 2003	
	- Installation & commission December -31, 2005	
2	For existing thermal power plants, a feasibility study will be carried out by Central Electricity Authority (CEA) to examine possibility to reduce the particulate matter emissions to 100 mg/Nm ³ . The studies shall also suggest the road map to meet 100 mg/Nm ³ . The studies shall also suggest the road map to meet 100 mg/Nm ³ wherever found feasible. CEA shall submit the report by March 2004.	Project come up in 2006 – Project is designed for the particulate matter emissions to 100 mg/Nm ³ . MOEF has also stipulated in EC conditions.
3	New / expansion power projects to be accorded environmental clearance on or after 1.4.1.2003 shall meet the limit of 100 mg/Nm ³ for particulate matter.	Complied
4	Development of SO ₂ & NO _x emission standards for coal based plants by December 2003.	Complied as per EC conditions by MOEF & CFE & CTO conditions by RSPCB
	- New/ expansion power projects shall meet the limit of SO ₂ & NO _x w.e.f. 1.1.2005.	
	- Existing power plants shall meet the limit of SO ₂ & NO _x w.e.f. 1.1.2006.	
5	Install/activate opacity meters/ continuous monitoring system in all the units by December 31, 2004 with proper calibrations system.	All Eight flue has provided with CEMS system with Opacity meter
6	Development of guidelines/ standards for mercury and other toxic heavy metals emissions by December 2003.	The project is Lignite Coal Based Pit head project and EC, CTO and CFE Conditions being complied.
		Both are well below the norms
7	Review of stack height requirement and guidelines for power plants based on micro meteorological data by June 2003.	Stack height has been designed as per Micro Meteorological conditions and condition of EC granted by MOEF.
8	Implementation of use of beneficiated coal as per GOI Notification:	Not Applicable
	Power plants will sign fuel supply agreement (FSA)	- Project is pit head project and

	Options/mechanism for setting up of coal washeries as a long term measure	designed on basis of Lignite coal from Adjacent Kapurdi and Jalipa Lignite.
	* Coal India will up its own washery	
	* State Electricity Board to set up its own washery	
	* Coal India to ask private entrepreneurs to set up washeries for CIL and taking washing charges	
	* SEBs to select a private entrepreneur to set up a washery near pit-head installation of coal beneficiation plant	
9	Power plants will indicate their requirement of abandoned coal mines for ash disposal & Coal India/ MOC shall provide the list of abandoned mines by June 2003 to CEA.	Complied
10	Power plants will provide dry ash to the users outside the premises or uninterrupted access to the users within six months.	This is in practice – Complied
11	Power Plants should provide dry fly ash free of cost to the users.	This is in practice – Complied
12	State P.W.Ds/ construction & development agencies shall also adhere to the specifications/Schedules of CPWD for ash based products utilization MoEF will take up the matter with State Governments.	
13	(i) New plants to be accorded environmental 1.04.2003 shall adopt dry fly ash extraction or dry disposal system or Medium (35-40%) ash concentration slurry disposal system or Lean phase with hundred percent ash water re-circulation system depending upon site specific environmental situation.	Dry Fly ash Handling system is incorporated for better utilization of Ash.
	(ii) Existing plants shall adopt any of the systems mentioned in 13 (i) by December 2004.	Not applicable
14	Fly ash Mission shall prepare guidelines/manuals for fly ash utilization by March 2004.	Currently Cement Manufacturing Industries and Brick manufactures are lifting up Ash.
15	New plants shall promote adoption of clean coal and clean power generation technologies	Project is pit head project and designed on basis of Lignite coal from Adjacent Kapurdi and Jalipa Lignite.

ANNEXURE-I

STACK EMISSION MONITORING RESULTS OCT – 2021 to MAR – 2022

Month: Oct' 2021

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	14.8	16.5	17.5	17.9	18.1	16.8	17.4	18.1
2	Flow	Nm ³ /Sec	138	135	136	131	131	131	132	132
3	Stack Exit Temp.	°C	149	116	129	115	137	148	155	137
4	Particulate Matter	mg/Nm ³	48.5	40.9	40.3	52.9	40.6	45.8	54.6	42.5
5	Sulphur Dioxide	mg/Nm ³	404	382	392	350	425	404	387	397
6	Oxides of Nitrogen	mg/Nm ³	174	141	134	66	177	128	110	120

Month: Nov' 2021

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	14.6	15.8	16.5	18.2	16.9	17.5	16.9	17.5
2	Flow	Nm ³ /Sec	135	136	135	134	132	134	133	132
3	Stack Exit Temp.	°C	133	117	102	92	130	141	143	129
4	Particulate Matter	mg/Nm ³	36.0	36.1	48.0	40.1	42.8	35.5	38.0	39.5
5	Sulphur Dioxide	mg/Nm ³	444	371	426	392	398	422	419	383
6	Oxides of Nitrogen	mg/Nm ³	136	115	111	123	130	169	79	113

Month: Dec' 2021

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	13.9	14.6	15.2	16.5	15.6	16.4	15.9	16.3
2	Flow	Nm ³ /Sec	132	134	133	131	135	133	130	135
3	Stack Exit Temp.	°C	145	123	112	95	125	139	144	135
4	Particulate Matter	mg/Nm ³	42.1	45.7	56.8	52.6	56.9	46.7	57.2	46.2
5	Sulphur Dioxide	mg/Nm ³	453	339	443	346	374	401	456	396
6	Oxides of Nitrogen	mg/Nm ³	123	145	139	118	145	157	65.2	124

ANNEXURE-I

Month: Jan' 2022

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	14.2	13.5	14.3	15.4	13.9	15.7	16.2	15.7
2	Flow	Nm ³ /Sec	131	132	133	134	132	132	136	134
3	Stack Exit Temp.	°C	130	106	114	94.4	131	155	90.5	129
4	Particulate Matter	mg/Nm ³	31.6	32.1	54.6	58.0	53.0	37.4	37.8	53.3
5	Sulphur Dioxide	mg/Nm ³	497	439	472	463	501	474	499	450
6	Oxides of Nitrogen	mg/Nm ³	169	107	95.5	124	129	98.2	164	107

Month: Feb' 2022

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	13.8	14.2	13.5	15.2	14.6	12.3	14.2	13.5
2	Flow	Nm ³ /Sec	135	134	132	133	135	134	135	134
3	Stack Exit Temp.	°C	147	121	101	130	137	160	151	127
4	Particulate Matter	mg/Nm ³	30.0	27.9	57.4	57.7	52.7	34.6	40.5	45.4
5	Sulphur Dioxide	mg/Nm ³	525	428	461	407	513	486	523	475
6	Oxides of Nitrogen	mg/Nm ³	146	143	147	94	148	108	179	118

Month: Mar' 2022

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	14.3	13.6	13.2	14.3	14.6	13.4	14.2	15.2
2	Flow	Nm ³ /Sec	136	132	133	135	132	143	136	137
3	Stack Exit Temp.	°C	149	126	118	136	138	173	158	138
4	Particulate Matter	mg/Nm ³	29.6	36.0	50.5	56.7	40.6	38.3	34.3	44.6
5	Sulphur Dioxide	mg/Nm ³	486	417	444	384	487	486	465	491
6	Oxides of Nitrogen	mg/Nm ³	147	191	117	128	123	124	144	148

Unit # 1 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-21	Average	404	174	48.5
	Max	470	237	60.0
Nov-21	Average	444	136	36.0
	Max	528	197	40.6
Dec-21	Average	487	144	33.6
	Max	556	272	38.0
Jan-22	Average	497	169	31.6
	Max	535	211	38.6
Feb-22	Average	525	146	30.04
	Max	538	197	46.13
Mar-22	Average	486	147	29.61
	Max	535	195	38.29

Unit # 2 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-21	Average	382	141	40.9
	Max	402	194	52.2
Nov-21	Average	371	115	36.1
	Max	450	246	44.7
Dec-21	Average	437	132	30.6
	Max	453	206	43.9
Jan-22	Average	439	107	32.1
	Max	450	156	39.6
Feb-22	Average	428	143	27.97
	Max	451	207	43.19
Mar-22	Average	417	191	36.09
	Max	447	260	46.12

ANNEXURE-II

Unit # 3 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-21	Average	392	134	40.4
	Max	464	187	60.6
Nov-21	Average	426	111	48.0
	Max	515	221	53.6
Dec-21	Average	463	135	42.3
	Max	514	178	50.0
Jan-22	Average	472	95	54.6
	Max	506	197	56.8
Feb-22	Average	461	147	57.43
	Max	510	225	74.24
Mar-22	Average	444	117	50.57
	Max	510	157	75.79

Unit # 4 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-21	Average	350	66	52.9
	Max	430	96	68.8
Nov-21	Average	392	123	40.1
	Max	520	212	47.6
Dec-21	Average	458	103	39.2
	Max	505	125	50.8
Jan-22	Average	463	98	58.0
	Max	503	107	74.8
Feb-22	Average	407	94	57.70
	Max	486	131	78.46
Mar-22	Average	384	128	56.73
	Max	418	181	67.86

ANNEXURE-II

Unit # 5 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-21	Average	425	177	40.6
	Max	452	256	53.0
Nov-21	Average	398	130	42.8
	Max	521	165	56.0
Dec-21	Average	523	160	58.7
	Max	535	276	67.3
Jan-22	Average	501	129	53.0
	Max	527	195	78.9
Feb-22	Average	513	148	52.78
	Max	538	199	79.52
Mar-22	Average	487	123	40.63
	Max	530	175	73.10

Unit # 6 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-21	Average	404	128	45.8
	Max	449	236	78.0
Nov-21	Average	422	169	35.5
	Max	539	218	46.1
Dec-21	Average	490	175	42.8
	Max	524	287	46.1
Jan-22	Average	474	98	37.4
	Max	523	204	46.1
Feb-22	Average	486	108	34.69
	Max	532	204	46.08
Mar-22	Average	486	124	38.32
	Max	533	180	46.04

Unit # 7 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-21	Average	387	110	54.6
	Max	436	228	75.9
Nov-21	Average	419	79	38.0
	Max	522	101	44.6
Dec-21	Average	502	72	37.4
	Max	524	103	46.1
Jan-22	Average	499	164	37.8
	Max	525	275	46.1
Feb-22	Average	523	179	40.55
	Max	532	247	46.12
Mar-22	Average	465	144	34.32
	Max	529	170	46.09

Unit # 8 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-21	Average	397	120	42.5
	Max	446	194	66.0
Nov-21	Average	313	113	39.5
	Max	515	165	46.5
Dec-21	Average	490	132	50.2
	Max	519	184	67.3
Jan-22	Average	450	107	53.3
	Max	515	166	59.3
Feb-22	Average	475	118	45.49
	Max	522	199	58.54
Mar-22	Average	491	148	44.64
	Max	523	221	52.77

ANNEXURE-III
Ambient Air Quality Data- OCT, 2021 – MAR, 2022
Month – OCT' 2021

SN	Location (Avg.24 Hrs.)	PM-10 ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	PM-2.5 ($\mu\text{g}/\text{m}^3$)
1	Reservoir Area	26.90	18.32	24.56	0.57	8.15
2	Main Gate	21.06	12.90	28.67	0.38	17.69
3	Ash pond	24.45	19.64	23.12	0.51	19.31
4	Bhardesh Village	22.01	8.03	18.67	0.53	15.04
5	Ishrpura Village	27.87	16.66	28.67	0.29	18.41
6	Chuli Village	22.41	19.85	21.54	0.64	20.44

Month – Nov' 2021

SN	Location (Avg.24 Hrs.)	PM-10 ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	PM-2.5 ($\mu\text{g}/\text{m}^3$)
1	Reservoir Area	25.37	18.56	20.85	0.57	11.36
2	Main Gate	28.12	12.90	29.63	0.46	26.18
3	Ash pond	25.46	19.84	20.84	0.47	16.49
4	Bhardesh Village	21.92	5.73	15.68	0.67	12.84
5	Ishrpura Village	27.67	15.29	29.66	0.36	13.66
6	Chuli Village	28.14	18.53	29.85	0.80	25.82

Month – Dec' 2021

SN	Location (Avg.24 Hrs.)	PM-10 ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	PM-2.5 ($\mu\text{g}/\text{m}^3$)
1	Reservoir Area	30.74	18.56	20.85	0.57	11.36
2	Main Gate	28.12	12.90	29.63	0.46	26.18
3	Ash pond	25.46	19.84	20.84	0.47	16.49
4	Bhardesh Village	21.48	5.96	12.63	0.59	12.51
5	Ishrpura Village	27.67	15.29	29.66	0.36	13.66
6	Chuli Village	28.14	18.53	29.85	0.80	25.82

ANNEXURE-III

Month – Jan' 2022

SN	Location (Avg.24 Hrs.)	PM-10 ($\mu\text{g}/\text{m}^3$)	SO2 ($\mu\text{g}/\text{m}^3$)	NO2 ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	PM-2.5 ($\mu\text{g}/\text{m}^3$)
1	Reservoir Area	29.80	18.03	27.10	0.57	10.35
2	Main Gate	29.69	10.97	30.78	0.64	23.40
3	Ash pond	29.96	19.91	26.50	0.47	10.58
4	Bhardesh Village	27.81	5.61	6.06	0.54	12.85
5	Ishrpura Village	40.78	10.98	30.90	0.57	16.36
6	Chuli Village	29.83	18.19	31.19	0.87	24.93

Month – Feb' 2022

SN	Location (Avg.24 Hrs.)	PM-10 ($\mu\text{g}/\text{m}^3$)	SO2 ($\mu\text{g}/\text{m}^3$)	NO2 ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	PM-2.5 ($\mu\text{g}/\text{m}^3$)
1	Reservoir Area	30.19	18.21	27.32	0.57	8.62
2	Main Gate	31.45	10.98	31.08	0.65	20.84
3	Ash pond	31.18	18.69	27.36	0.47	10.71
4	Bhardesh Village	24.17	6.46	13.38	0.53	14.70
5	Ishrpura Village	44.78	11.05	31.05	0.57	18.27
6	Chuli Village	29.88	17.92	30.61	0.87	23.04

Month – Mar' 2022

SN	Location (Avg.24 Hrs.)	PM-10 ($\mu\text{g}/\text{m}^3$)	SO2 ($\mu\text{g}/\text{m}^3$)	NO2 ($\mu\text{g}/\text{m}^3$)	CO (mg/m^3)	PM-2.5 ($\mu\text{g}/\text{m}^3$)
1	Reservoir Area	35.45	18.20	30.46	0.67	7.65
2	Main Gate	35.07	11.02	30.58	0.67	7.32
3	Ash pond	36.52	6.82	30.74	0.69	19.67
4	Bhardesh Village	29.59	11.02	30.58	0.69	23.35
5	Ishrpura Village	23.98	16.22	19.48	0.49	21.66
6	Chuli Village	18.86	7.24	30.49	0.86	8.51

Effluent Water Quality OCT – 2021 to MAR – 2022

SN	Parameters	UoM	CPCB Limits	Results					
				Oct	Nov	Dec	Jan	Feb	Mar
1.	pH		6.5-8.5	7.77	7.67	7.57	7.45	7.37	7.45
2.	Biochemical Oxygen Demand (BOD) @ 27Deg C for 3 days	mg/L	< 30.0	18.75	16.25	17.00	15.25	16.00	13.00
3.	Chemical Oxygen Demand (COD)	mg/L	< 250	128.5	131.2	127.2	122.5	120.0	117.7
4.	Total Kjeldhal Nitrogen as NH ₃	mg/L	< 100	17.35	15.69	14.19	14.77	12.02	11.14
5.	Free Available Chlorine	mg/L	< 0.5	BDL<0.18	BDL<0.18	BDL<0.18	BDL<0.18	BDL<0.18	BDL<0.18
6.	Oil & Grease	mg/L	< 20	3.37	2.85	2.52	2.15	2.07	2.00
7.	Copper as Cu	mg/L	< 1	0.045	0.021	0.017	0.017	0.018	0.057
8.	Zinc as Zn	mg/L	< 1	0.042	0.037	0.029	0.033	0.028	0.027
9.	Iron as Fe	mg/L	< 1	0.59	0.50	0.41	0.38	0.32	0.28
10.	Total Suspended Solid	mg/L	< 100	73.5	70.7	61.5	65.2	65.2	71.5
11.	Ammonical Nitrogen as N	mg/L	< 50	6.37	6.15	5.66	4.77	4.47	4.38
12.	Nitrate Nitrogen	mg/L	< 10	3.05	2.62	2.52	2.31	1.96	1.81
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-V



ARIHANT ANALYTICAL LABORATORY PVT. LTD.

AN ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OHSAS) CERTIFIED LABORATORY
 272, Phase-IV, Sec-57, HSIIDC, Kundli, Sonapat-131028 (Haryana)
 Ph. : 7082301442, 9250014551 Email : aalkundli@gmail.com
 Website : www.aalkundli.com

TEST CERTIFICATE

Issued To: M/s Environze Global Limited
 110, Laxmi Deep Tower,
 District Centre Laxmi Nagar,
 Delhi - 110 092

Sample Description: One Sample described as STP Outlet Water,
 was received.

Sample ID: JSW Plant

Report No. AAL WQT-20211018001

Date of Receiving: 18/10/2021
Date of Starting: 18/10/2021
Date of Completion: 23/10/2021
Date of Reporting: 23/10/2021
Sample Quantity: 2 Litre
Sample Packing Condition: Plastic Bottle
Sample Submitted By: Customer

TEST RESULT

S. No.	Test parameters	Unit	Results	Requirement as per CPCB Guideline		Testing Method
				Into Inland Surface Water	On land for Irrigation	
1	pH Value	-	7.33	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	32.0	100 Max.	200 Max.	IS 3025(P-17)-1984
3	Oil & Grease	mg/l	<2.0	10 Max.	10 Max.	IS 3025(P-39)-1991
4	Biochemical Oxygen Demand (BOD - 3 days at 27°C)	mg/l	23.0	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	114.0	250 Max.	-	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	15.4	-	-	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	6.7	50 Max.	-	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	70	<100	-	IS 1622-1981

End of Report

Vinay Dixit
(Microbiologist)

Ashutosh Srivastava
(SR. ANALYST)
Authorized Signatory

Note: 1. The Result indicated above refer to the tested sample and listed test parameters only, endorsement of products is neither inferred nor implied.
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Page 1 of 1

Issued To: M/s Environze Global Limited
110, Laxmi Deep Tower,
District Centre Laxmi Nagar,
Delhi – 110 092

Sample Description: One Sample described as **STP Outlet Water**,
was received.

Sample ID: JSW Plant

Report No. AAL WQT-20211116003

Date of Receiving: 16/11/2021

Date of Starting: 16/11/2021

Date of Completion: 22/11/2021

Date of Reporting: 22/11/2021

Sample Quantity: 2 Litre

Sample Packing Condition: Plastic Bottle

Sample Submitted By: Customer

TEST RESULT

S. No.	Test parameters	Unit	Results	Requirement as per CPCB Guideline		Testing Method
				Into Inland Surface Water	On land for Irrigation	
1	pH Value	-	7.48	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	28.0	100 Max.	200 Max.	IS 3025(P-17)-1984
3	Oil & Grease	mg/l	<2.0	10 Max.	10 Max.	IS 3025(P-39)-1991
4	Biochemical Oxygen Demand (BOD - 3 days at 27°C)	mg/l	21.0	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	108.0	250 Max.	-	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	12.6	-	-	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	5.7	50 Max.	-	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	80	<100	-	IS 1622-1981

End of Report

Vinay Dixit
(Microbiologist)

Ashutosh Srivastava
(SR. ANALYST)
Authorised Signatory

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ANNEXURE-V



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Page 1 of 1

Issued To: M/s Environze Global Limited
110, Laxmi Deep Tower,
District Centre Laxmi Nagar,
Delhi – 110 092

Sample Description: One Sample described as STP Outlet Water,
was received.

Sample ID: JSW Plant

Report No. AAL WQT-20211213013

Date of Receiving: 13/12/2021

Date of Starting: 13/12/2021

Date of Completion: 18/12/2021

Date of Reporting: 18/12/2021

Sample Quantity: 2 Litre

Sample Packing Condition: Plastic Bottle

Sample Submitted By: Customer

TEST RESULT

S. No.	Test parameters	Unit	Results	Requirement as per CPCB Guideline		Testing Method
				Into Inland Surface Water	On land for Irrigation	
1	pH Value	-	7.52	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	18.0	100 Max.	200 Max.	IS 3025(P-17)-1984
3	Oil & Grease	mg/l	<2.0	10 Max.	10 Max.	IS 3025(P-39)-1991
4	Biochemical Oxygen Demand (BOD - 3 days at 27°C)	mg/l	17.0	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	82.0	250 Max.	-	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	10.5	-	-	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	3.6	50 Max.	-	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	50	<100	-	IS 1622-1981

****End of Report****

Vinay Dixit
(Microbiologist)

Ashutosh Srivastava
(SR. ANALYST)
Authorised Signatory

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Delhi – 110 092

Sample Description: One Sample described as STP Outlet Water,
was received.

Sample ID: JSW Plant

Report No. AAL WQT-20220117009

Date of Receiving: 17/01/2022

Date of Starting: 17/01/2022

Date of Completion: 22/01/2022

Date of Reporting: 22/01/2022

Sample Quantity: 2 Litre

Sample Packing Condition: Plastic Bottle

Sample Submitted By: Customer

TEST RESULT

S. No.	Test parameters	Unit	Results	Requirement as per CPCB Guideline		Testing Method
				Into Inland Surface Water	On land for Irrigation	
1	pH Value	-	7.60	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	21.4	100 Max.	200 Max.	IS 3025(P-17)-1984
3	Oil & Grease	mg/l	<2.0	10 Max.	10 Max.	IS 3025(P-39)-2021
4	Biochemical Oxygen Demand (BOD - 3 days at 27°C)	mg/l	19.0	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	98.0	250 Max.	-	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	12.5	-	-	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	4.4	50 Max.	-	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	70	<100		IS 1622-1981

****End of Report****

Vinay Dixit
(Microbiologist)

Ashutosh Srivastava
(CD. ANALYST)
Authorised Signatory

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ANNEXURE-V



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Page 1 of 1

Issued To: M/s Environze Global Limited
110, Laxmi Deep Tower,
District Centre Laxmi Nagar,
Delhi – 110 092

Sample Description: One Sample described as STP Outlet Water,
was received.

Sample ID: JSW Plant

Report No. AAL WQT-20220208018

Date of Receiving: 08/02/2022

Date of Starting: 08/02/2022

Date of Completion: 14/02/2022

Date of Reporting: 14/02/2022

Sample Quantity: 2 Litre

Sample Packing Condition: Plastic Bottle

Sample Submitted By: Customer

TEST RESULT

S. No.	Test parameters	Unit	Results	Requirement as per CPCB Guideline		Testing Method
				Into Inland Surface Water	On land for Irrigation	
1	pH Value	-	7.63	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	23.0	100 Max.	200 Max.	IS 3025(P-17)-1984
3	Oil & Grease	mg/l	<2.0	10 Max.	10 Max.	IS 3025(P-39)-2021
4	Biochemical Oxygen Demand (BOD - 3 days at 27°C)	mg/l	15.0	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	74.4	250 Max.	-	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	12.6	-	-	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	3.2	50 Max.	-	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	60	<100	-	IS 1622-1981

****End of Report****

Vinay Dixit
(Microbiologist)

Ashutosh Srivastava
(SR. ANALYST)
Authorised Signatory

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ANNEXURE-V



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TEST CERTIFICATE

Page 1 of 1

Issued To: M/s Environze Global Limited
110, Laxmi Deep Tower,
District Centre Laxmi Nagar,
Delhi - 110 092

Sample Description: One Sample described as STP Outlet Water,
was received.

Sample ID: JSW Plant

Report No. AAL WQT-20220305007

Date of Receiving: 05/03/2022

Date of Starting: 05/03/2022

Date of Completion: 10/03/2022

Date of Reporting: 10/03/2022

Sample Quantity: 2 Litre

Sample Packing Condition: Plastic Bottle

Sample Submitted By: Customer

TEST RESULT

S. No.	Test parameters	Unit	Results	Requirement as per CPCB Guideline		Testing Method
				Into Inland Surface Water	On land for Irrigation	
1	pH Value	-	7.85	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	29.0	100 Max.	200 Max.	IS 3025(P-17)-1984
3	Oil & Grease	mg/l	<2.0	10 Max.	10 Max.	IS 3025(P-39)-2021
4	Biochemical Oxygen Demand (BOD - 3 days at 27°C)	mg/l	21.0	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	112.0	250 Max.	-	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	16.5	-	-	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	9.0	50 Max.	-	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	90	<100	-	IS 1622-1981

****End of Report****

Vijay Dixit
(Microbiologist)

Ashutosh Srivastava
(SR. ANALYST)
Authorised Signatory

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ANNEXURE-VI



JSW Energy (Barmer) Limited
 Village & Post : Bhadresh, Post Box No. 30,
 Distt : Barmer – 344001 (Rajasthan)
 CIN : U31102MH1996PLC185098
 Phone : +91 2982 229100
 Fax : +91 2982 229222
 Website : www.jsw.in

Ref: JSWE(B)L/ENV/21-22/0022

Date: 20.11.2021

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

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

Ref: Consent to Operate

1. Compliance to CTO for Unit 1 & 2, File No. **F(HDF)/Barmer(Barmer)/9(1)/2016-2017/28-30 Order No. 2020-2021/CPM/5618, Dt: 27/04/2020.**
2. Compliance to CTO for Unit 3 & 4, File No. **F(HDF)/Barmer(Barmer)/9(1)/2016-2017/31-33 Order No: 2020-2021/CPM/5619, Dated: 27/04/2020.**
3. Compliance to CTO for Unit 5 & 6, File No. **F(HDF)/Barmer(Barmer)/12(1)/2017-2018/1505-1507; Order No. 2017-2018/HDF/2564, Dt: 30/05/2017.**
4. Compliance to CTO for Unit 7 & 8, File No. **F(HDF)/Barmer(Barmer)/12(1)/2017-2018/1502-1504; Order No. 2017-2018/HDF/2563, Dt: 30/05/2017.**

Dear Sir,

With reference to Consent To Operate issued for Unit # 1-2, 3-4, 5-6 and 7-8 for operating 1080 MW (8 x 135 MW) Lignite Based Thermal Plant of M/s JSW ENERGY (BARMER) Ltd, Dist.- Barmer, Rajasthan, we herewith submit half-yearly compliance report, for the period pertaining to **APRIL – 2021 to SEPTEMBER-2021**, 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 Operation activity at the Power Plant as per the conditions stipulated in this Consent to Operate.

Thanking you.

For JSW ENERGY (BARMER) Ltd.

Vinod Jindal

Vinod Jindal
 DGM (LHS, Environment & Chemistry)

Enclosure:

- | | |
|------------------------------|---------------------|
| 1. Compliance Report | <u>Annexure-I</u> |
| 2. Stack monitoring Data | <u>Annexure-II</u> |
| 3. CEMS Monitoring Data | <u>Annexure-III</u> |
| 4. AAQ Monitoring Data | <u>Annexure-IV</u> |
| 5. Effluent Water Data | <u>Annexure-V</u> |
| 6. STP Treated Water Quality | |



C.C. The Regional Officer – RSPCB, Balotara.



Part of O.P.Jindal Group

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