Energy (Barmer) Limited
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Distt : Barmer – 344001 (Rajasthan)
CIN : U31102MH1996PLC185098
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Ref: JSWE(B)L/ENV/23-24/004 Date: 27.05.2023

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

Sub: Compliance Report – Consent to Operate 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. **C**ompliance 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 – 2022 to MARCH–2023,** for the conditions stipulated in the Consent To Operate 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**
7. Last Compliance Report **_Annexure-VI**

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 is designed with a total capacity of 1080 MW. As per this Consent, **Unit 1 & 2** is being 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 is 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: SO2 600 mg/Nm³ Particulate Matter 50 mg/Nm³ NOx 300 mg/Nm³ Hg compounds and its 0.03 mg/Nm³ DG Set (2 x 1000KVA) Acoustic Enclosure CO 150 mg/Nm³ Particulate Matter 75mg/Nm³ NOx 710ppm NMHC100 mg/Nm³	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 is Being 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 is 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 is designed with a total capacity of 1080 MW. As per this Consent, Unit 1 & 2 is being 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-IAII (I) dated20/07/2007 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, GoI 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),SO2,NOx,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, SO2, NOx 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 shell be complied.
19	That no additional source of air emission shall be installed without prior consent from the State Board.	Noted shell 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 is being 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 is being 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.	Being 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 is designed with a total capacity of 1080 MW. As per this Consent, **Unit 3 & 4** is being 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 is 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: SO2 600 mg/Nm³ Particulate Matter 50 mg/Nm³ NOx 300 mg/Nm³ Hg compounds and its 0.03 mg/Nm³ DG Set (2 x 1000KVA) Acoustic Enclosure CO 150 mg/Nm³ Particulate Matter 75mg/Nm³ NOx 710ppm NMHC100 mg/Nm³	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 16th 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 is being 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 is 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 is designed with a total capacity of 1080 MW. As per this Consent, Unit 3 & 4 is being 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-IAII (I) dated20/07/2007 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, GoI 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),SO2,NOx,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, SO2, NOx 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 is being 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 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 is being 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.
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 is 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 is being 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 is 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: SO2 600 mg/Nm³ Particulate Matter 50 mg/Nm³ NOx 450 mg/Nm³ Hg compounds and its 0.03 mg/Nm³ DG Set -1000KVA Acoustic Enclosure NOx 710 ppm NMHC100 mg/Nm³ Particulate Matter 75 mg/Nm³ CO 150 mg/Nm³	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 is being 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 is 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- IAII(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 & sprit.	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 16th 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 31-03-2021. 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 feeding system.	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 are being 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 is 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 is taken to comply with the stipulation.
23	That no industrials 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 is being 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 is being 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 Rain Harvesting 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 is being utilized as per MOEF guidelines and reported.
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.	JSWE(B)L received The BG from RSPCB as we have completed all the works within stipulated time.
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 Rain Harvesting 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.
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 is 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 is being 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 is 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: SO2 600 mg/Nm³ Particulate Matter 50 mg/Nm³ NOx 450 mg/Nm³ Hg compounds and its 0.03 mg/Nm³ DG Set -1000KVA Acoustic Enclosure NOx 710 ppm NMHC100 mg/Nm³ Particulate Matter 75 mg/Nm³ CO 150 mg/Nm³	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 is being 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 is 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- IAII(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 & sprit.	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 16th 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 31-03-2021. 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 feeding system.	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 are being 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 is 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 is taken to comply with the stipulation.
23	That no industrials 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 is being 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 is being 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 Rain Harvesting 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 is being utilized as per MOEF guidelines and reported.
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.	JSWE(B)L received The BG from RSPCB as we have completed all the works within stipulated time.
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 Rain Harvesting 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/Nm3. The studies shall also suggest the road map to meet 100 mg/Nm3. The studies shall also suggest the road map to meet 100 mg/Nm3 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/Nm3. MOEF has also stipulated in EC conditions.
3	New / expansion power projects to be accorded environmental clearance on or after1.4.1.2003 shall meet the limit of 100 mg/Nm3 for particulate matter.	Complied
4	Development of SO2 & NOx emission standards for coal based plants by December 2003.	Complied as per EC conditions by MOEF and CFE & CTO conditions by RSPCB
	-New/ expansion power projects shall meet the limit of SO2 & NOx w.e.f. 1.1.2005.	
	- Existing power plants shall meet the limit of SO2 & NOX w.e.f. 1.1.2006.	
5	Install/activate opacity meters/ continuous monitoring system in all the units by December 31, 2004 with proper calibration system.	All Eight flue has equipped 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 percept ash water re-circulation system depending upon site specific environmentalsituation.	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.	Notapplicable
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 – 2022 to MAR – 2023

Month: Oct' 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	22.98	22.91	18.98	SHUTDOWN	23.59	23.44	19.12	18.88
2	Flow	Nm^3/Sec	172.8	171.9	142.1		174.6	177.8	144.4	141.6
3	Stack Exit Temp.	^0C	172	173	174		179	168	170	173
4	Particulate Matter	mg/Nm^3	40.6	38.5	42.8		39.9	38.6	35.9	48.7
5	Sulphur Dioxide	mg/Nm^3	512.8	497.8	530.0		523.2	524.2	513.7	501.7
6	Oxides of Nitrogen	mg/Nm^3	147.2	154.3	163.1		154.3	146.3	168.9	168.5

Month: Nov' 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	20.21	19.34	19.47	18.95	19.06	20.11	19.47	20.08
2	Flow	Nm^3/Sec	156.9	147.1	149.1	149.2	146.9	156.5	149.7	154.1
3	Stack Exit Temp.	^0C	158	160	164	152	161	157	162	163
4	Particulate Matter	mg/Nm^3	40.0	45.5	48.2	44.7	39.7	36.3	42.9	47.2
5	Sulphur Dioxide	mg/Nm^3	518.5	539.5	542.1	512.8	534.5	534.5	559.2	506.2
6	Oxides of Nitrogen	mg/Nm^3	150.1	162.7	145.4	147.2	156.3	148.2	148.4	162.4

Month: Dec' 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	17.81	18.13	18.22	18.95	18.35	18.83	18.30	18.39
2	Flow	Nm^3/Sec	133.6	135.4	137.6	143.1	138.0	141.9	137.6	137.6
3	Stack Exit Temp.	^0C	173	175	170	170	172	171	172	174
4	Particulate Matter	mg/Nm^3	40.2	36.8	49.7	43.3	41.7	46.3	39.6	48.8
5	Sulphur Dioxide	mg/Nm^3	516.5	494.9	507.1	518.4	536.2	545.2	514.7	535.6
6	Oxides of Nitrogen	mg/Nm^3	148.3	146.2	161.6	152.6	154.0	144.2	148.2	155.4

ANNEXURE-I

Month: Jan' 2023

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	20.39	20.41	19.38	20.22	19.26	19.38	20.26	19.84
2	Flow	Nm^3/Sec	152.9	154.1	154.1	153.7	144.8	149.7	152.7	150.2
3	Stack Exit Temp.	^0C	173	170	156	167	172	160	171	169
4	Particulate Matter	mg/Nm^3	42.6	36.9	44.9	43.0	38.6	35.3	36.8	49.5
5	Sulphur Dioxide	mg/Nm^3	530.0	480.8	545.2	551.6	493.5	512.6	504.7	480.8
6	Oxides of Nitrogen	mg/Nm^3	150.5	150.8	168.9	168.5	156.2	146.3	168.5	164.5

Month: Feb' 2023

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	18.24	17.87	18.21	18.29	17.59	17.89	18.60	18.11
2	Flow	Nm^3/Sec	140.9	137.4	139.1	138.4	132.2	137.3	143.1	138.3
3	Stack Exit Temp.	^0C	160	162	165	169	172	163	162	165
4	Particulate Matter	mg/Nm^3	36.8	40.4	45.2	37.4	38.4	42.7	38.9	44.0
5	Sulphur Dioxide	mg/Nm^3	485.8	489.3	502.6	497.8	517.6	520.4	499.0	529.9
6	Oxides of Nitrogen	mg/Nm^3	139.1	146.2	149.2	164.5	160.4	168.56	142.1	139.1

Month: Mar' 2023

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	17.3	17.5	17.7	17.6	16.9	17.0	16.8	17.8
2	Flow	Nm^3/Sec	130.1	131.6	132.5	131.8	127.3	126.9	126.3	133.7
3	Stack Exit Temp.	^0C	172	172	173	175	173	176	172	174
4	Particulate Matter	mg/Nm^3	44.1	38.3	47.6	34.3	43.8	41.7	38.5	33.5
5	Sulphur Dioxide	mg/Nm^3	505.3	484.6	509.3	472.7	579.9	547.6	586.9	486.6
6	Oxides of Nitrogen	mg/Nm^3	145.9	150.7	151.7	150.6	170.1	165.4	163.0	138.2

ANNEXURE-II

Unit # 1 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-22	Average	473.44	95.79	33.00
	Max	523.14	140.25	44.58
Nov-22	Average	472.60	129.60	43.24
	Max	525.74	195.31	46.09
Dec-22	Average	484.66	130.83	38.85
	Max	528.74	216.54	44.45
Jan-23	Average	443.00	136.91	33.29
	Max	521.21	186.07	46.13
Feb-23	Average	495.26	151.47	37.63
	Max	536.37	254.48	46.10
Mar-23	Average	489.69	147.10	40.04
	Max	539.84	191.58	45.99

Unit # 2 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-22	Average	416.17	103.53	34.34
	Max	447.87	148.52	46.21
Nov-22	Average	368.49	125.40	32.83
	Max	441.18	166.21	44.17
Dec-22	Average	398.01	125.15	38.75
	Max	452.70	169.68	46.16
Jan-23	Average	421.91	124.88	38.49
	Max	460.64	164.04	46.37
Feb-23	Average	404.22	111.71	38.05
	Max	450.43	170.75	45.96
Mar-23	Average	396.79	135.83	38.58
	Max	495.38	167.62	44.21

ANNEXURE-II

Unit # 3 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-22	Average	456.57	136.94	39.10
	Max	515.95	209.62	48.22
Nov-22	Average	477.93	116.08	49.77
	Max	517.67	163.13	48.79
Dec-22	Average	505.96	148.94	47.50
	Max	511.94	166.45	49.21
Jan-23	Average	427.48	116.00	44.78
	Max	525.53	169.94	48.46
Feb-23	Average	497.91	112.45	42.86
	Max	521.03	170.65	49.21
Mar-23	Average	465.29	129.56	44.11
	Max	539.92	146.68	48.43

Unit # 4 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-22	Average	SHUT DOWN		
	Max			
Nov-22	Average	242.38	119.61	46.15
	Max	345.21	169.95	49.56
Dec-22	Average	397.52	147.71	43.95
	Max	523.60	222.45	49.53
Jan-23	Average	349.77	135.62	45.64
	Max	545.04	124.32	49.94
Feb-23	Average	294.62	136.71	43.59
	Max	453.75	515.52	48.69
Mar-23	Average	431.84	162.05	46.50
	Max	544.17	187.18	48.96

ANNEXURE-II

Unit # 5 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-22	Average	446.98	138.76	32.92
	Max	526.90	189.45	43.55
Nov-22	Average	477.34	202.69	20.94
	Max	526.59	236.23	37.12
Dec-22	Average	462.26	191.00	39.07
	Max	548.41	232.38	45.41
Jan-23	Average	455.40	169.70	39.01
	Max	536.43	243.20	49.39
Feb-23	Average	457.63	170.51	35.11
	Max	524.35	236.84	44.25
Mar-23	Average	471.88	156.53	40.81
	Max	555.56	229.31	48.54

Unit # 6 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-22	Average	423.87	126.90	35.52
	Max	514.51	250.73	46.36
Nov-22	Average	498.68	178.02	43.59
	Max	526.82	285.61	46.50
Dec-22	Average	467.92	178.68	43.01
	Max	542.27	262.53	46.38
Jan-23	Average	484.13	190.94	41.35
	Max	547.67	288.27	46.38
Feb-23	Average	455.60	137.02	38.63
	Max	544.18	222.54	45.99
Mar-23	Average	518.46	162.18	45.44
	Max	545.35	227.91	46.34

ANNEXURE-II

Unit # 7 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-22	Average	415.19	115.44	38.05
	Max	477.83	173.89	45.53
Nov-22	Average	404.41	162.97	42.06
	Max	462.99	264.66	46.12
Dec-22	Average	416.90	147.62	40.51
	Max	470.04	225.13	46.10
Jan-23	Average	420.81	123.56	36.71
	Max	498.88	164.04	45.91
Feb-23	Average	418.14	137.78	38.36
	Max	488.88	229.90	46.09
Mar-23	Average	391.09	157.00	41.19
	Max	494.77	172.00	46.12

Unit # 8 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Oct-22	Average	491.75	130.77	45.04
	Max	523.78	137.07	48.94
Nov-22	Average	451.62	151.24	45.57
	Max	528.03	214.40	48.72
Dec-22	Average	487.65	140.33	43.87
	Max	518.21	236.87	48.03
Jan-23	Average	496.13	133.71	46.48
	Max	529.76	161.80	48.45
Feb-23	Average	510.34	134.78	41.27
	Max	533.80	220.47	48.54
Mar-23	Average	465.27	125.88	45.89
	Max	530.19	181.33	48.90

ANNEXURE-III

Ambient Air Quality Data- OCT, 2022 – MAR, 2023

Month – OCT' 2022

SN	Location (Avg.24 Hrs.)	PM-10 (µg/m³)	SO2 (µg/m³)	NO2 (µg/m³)	CO (mg/m³)	PM-2.5 (µg/m³)
1	Resevoir Area	24.83	18.21	29.45	0.66	5.01
2	Main Gate	31.04	10.91	30.58	0.59	26.21
3	Ash pond	31.04	7.90	29.88	0.35	14.97
4	Bhardesh Village	73.35	20.54	36.50	0.47	39.56
5	Ishrpura Village	72.35	19.40	34.17	0.46	41.27
6	Chuli Village	72.98	18.20	36.20	0.55	38.98

Month – Nov' 2022

SN	Location (Avg.24 Hrs.)	PM-10 (µg/m³)	SO2 (µg/m3)	NO2 (µg/m3)	CO (mg/m3)	PM-2.5 (µg/m3)
1	Resevoir Area	33.25	15.43	26.62	0.56	10.27
2	Main Gate	49.21	11.25	23.45	0.72	28.15
3	Ash pond	19.43	16.57	21.52	0.61	12.12
4	Bhardesh Village	70.17	19.83	27.47	0.56	35.43
5	Ishrpura Village	69.95	16.46	27.86	0.41	36.95
6	Chuli Village	70.82	14.71	30.81	0.52	31.01

Month – Dec' 2022

SN	Location (Avg.24 Hrs.)	PM-10 (µg/m³)	SO2 (µg/m3)	NO2 (µg/m3)	CO (mg/m3)	PM-2.5 (µg/m3)
1	Resevoir Area	25.48	18.64	16.04	0.62	7.61
2	Main Gate	32.91	8.62	19.53	0.59	22.26
3	Ash pond	31.18	14.21	26.96	0.32	14.39
4	Bhardesh Village	68.25	17.64	25.25	0.65	31.25
5	Ishrpura Village	65.47	21.07	27.56	0.56	22.56
6	Chuli Village	68.97	22.21	26.56	0.71	21.41

ANNEXURE-III

Month – Jan' 2023

SN	Location (Avg.24 Hrs.)	PM-10 (µg/m³)	SO2 (µg/m³)	NO2 (µg/m³)	CO (mg/m³)	PM-2.5 (µg/m³)
1	Resevoir Area	35.35	10.96	23.61	0.42	11.66
2	Main Gate	47.67	8.69	23.78	0.79	27.84
3	Ash pond	19.36	15.76	21.97	0.76	13.68
4	Bhardesh Village	75.62	17.01	27.65	0.23	36.25
5	Ishrpura Village	75.41	10.89	27.36	0.25	56.29
6	Chuli Village	64.35	14.52	29.54	0.35	28.64

Month – Feb' 2023

SN	Location (Avg.24 Hrs.)	PM-10 (µg/m³)	SO2 (µg/m³)	NO2 (µg/m³)	CO (mg/m³)	PM-2.5 (µg/m³)
1	Resevoir Area	31.83	16.58	22.96	0.62	10.16
2	Main Gate	38.34	12.05	23.77	0.55	23.64
3	Ash pond	20.89	15.44	21.91	0.60	14.46
4	Bhardesh Village	71.11	14.06	25.29	0.26	34.97
5	Ishrpura Village	73.35	14.07	26.16	0.39	52.22
6	Chuli Village	70.93	15.76	25.97	0.24	25.25

Month – Mar' 2023

SN	Location (Avg.24 Hrs.)	PM-10 (µg/m³)	SO2 (µg/m³)	NO2 (µg/m³)	CO (mg/m³)	PM-2.5 (µg/m³)
1	Resevoir Area	40.83	15.32	23.76	0.47	27.15
2	Main Gate	38.29	17.64	21.14	0.46	19.95
3	Ash pond	25.44	16.86	21.78	0.25	24.96
4	Bhardesh Village	66.85	12.27	24.94	0.26	35.87
5	Ishrpura Village	75.37	13.15	22.78	0.25	45.75
6	Chuli Village	66.16	15.72	25.91	0.24	32.15

ANNEXURE-IV

Effluent Water Quality OCT – 2022 to MAR – 2023

SN	Parameters	UoM	CPCB Limits	Results					
				Oct	Nov	Dec	Jan	Feb	Mar
1.	pH		**6.5-8.5**	7.45	7.34	7.87	7.61	7.27	7.19
2.	Biochemical Oxygen Demand (BOD) @ 27Deg C for 3 days	mg/L	**< 30.0**	17.0	20.25	14.75	17.50	15.25	15.25
3.	Chemical Oxygen Demand (COD)	mg/L	**< 250**	77.5	101.2	83.25	89.25	76.75	76.50
4.	Total Kjeldhal Nitrogen as NH3	mg/L	**< 100**	5.93	7.40	7.20	7.74	6.50	6.45
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**	1.17	2.15	1.51	2.05	2.17	2.20
7.	Copper as Cu	mg/L	**< 1**	0.041	0.031	0.012	0.014	0.012	0.027
8.	Zinc as Zn	mg/L	**< 1**	0.032	0.032	0.025	0.023	0.022	0.037
9.	Iron as Fe	mg/L	**< 1**	0.29	0.20	0.21	0.28	0.22	0.23
10.	Total Suspended Solid	mg/L	**< 100**	23.0	29.0	28.0	24.2	24.0	26.5
11.	Ammonical Nitrogen as N	mg/L	**< 50**	3.25	8.86	4.10	3.90	3.70	3.70
12.	Nitrate Nitrogen	mg/L	**< 10**	2.73	1.34	0.7	0.70	1.06	0.95
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.

(NABL Accredited Laboratory)

272, Phase-IV, Sec-57, HSIIDC, Kundli, Sonepat-131028 (Haryana)
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Website : www.aalkundli.com

TC-5826

TEST CERTIFICATE

Report No. AAL MIS-20221015021

Issued To: M/s Aquatech Systems (Asia) Pvt. Ltd.
Survey No.244/2,
Rajiv Gandhi Infotech Park,
Hinjewadi, Pune – 411 057, India

Sample Description: STP Outlet Water

Sample ID: Main Plant
STP-100 KLD

Date of Receiving:	15/10/2022
Date of Starting:	15/10/2022
Date of Completion:	20/10/2022
Date of Reporting:	20/10/2022
Sample Quantity:	2 Litre
Sample Packing Condition:	Plastic Bottle
Sample Submitted By:	Customer

TEST RESULT

S. No.	Test parameters	Unit	Results	Limits as per Environment (Protection) Rules,1986 Schedule-VI General Standards for Discharge		Testing Method
				Inland Surface Water	Land for Irrigation	
1	pH Value	-	7.82	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	14.0	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	12.0	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	61.0	250 Max.	NS	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	13.4	NS	NS	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	2.6	50 Max.	NS	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	60	<100		IS 1622-1981

NS=Not Specified

****End of Report****

Vinay Dixit
(Microbiologist)

Ashutosh Srivastava
(SR. ANALYST)
Authorised Signatory

Note:
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Report No. AAL MIS-20221115017

Issued To: **M/s Aquatech Systems (Asia) Pvt. Ltd.**
Survey No.244/2,
Rajiv Gandhi Infotech Park,
Hinjewadi, Pune – 411 057, India

Sample Description: **STP Outlet Water**

Sample ID: **Main Plant**
STP-100 KLD

Date of Receiving: 15/11/2022
Date of Starting: 15/11/2022
Date of Completion: 20/11/2022
Date of Reporting: 20/11/2022
Sample Quantity: 2 Litre
Sample Packing Condition: Plastic Bottle
Sample Submitted By: Customer

TEST RESULT

S. No.	Test parameters	Unit	Results	Limits as per Environment (Protection) Rules,1986 Schedule-VI General Standards for Discharge		Testing Method
				Inland Surface Water	Land for Irrigation	
1	pH Value	-	7.76	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	16.0	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	14.0	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	68.0	250 Max.	NS	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	13.8	NS	NS	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	2.8	50 Max.	NS	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	70	<100		IS 1622-1981

NS=Not Specified

****End of Report****

Vinay Dixit
(Microbiologist)

Dr. D.R. SHARMA
Gen. Manager(Q&T)
Authorised Signatory

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TEST CERTIFICATE

Report No. AAL MIS-20221220013

Issued To: **M/s Aquatech Systems (Asia) Pvt. Ltd.**
Survey No.244/2,
Rajiv Gandhi Infotech Park,
Hinjewadi, Pune – 411 057, India

Sample Description: **STP Outlet Water**

Sample ID: **Main Plant**
STP-100 KLD

Date of Receiving: 20/12/2022
Date of Starting: 20/12/2022
Date of Completion: 24/12/2022
Date of Reporting: 24/12/2022
Sample Quantity: 2 Litre
Sample Packing Condition: Plastic Bottle
Sample Submitted By: Customer

TEST RESULT

S. No.	Test parameters	Unit	Results	Limits as per Environment (Protection) Rules,1986 Schedule-VI General Standards for Discharge		Testing Method
				Inland Surface Water	Land for Irrigation	
1	pH Value	-	7.68	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	19.0	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	16.0	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	72.0	250 Max.	NS	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	14.0	NS	NS	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	3.1	50 Max.	NS	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	80	<100		IS 1622-1981

NS=Not Specified

End of Report

Vinay Dixit
(Microbiologist)

Dr. D.R. SHARMA
Gen. Manager (Q&T)
Authorised Signatory

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Survey No.244/2,
Rajiv Gandhi Infotech Park,
Hinjewadi, Pune – 411 057, India

Sample Description: **STP Outlet Water**

Sample ID: **Main Plant**
STP-100 KLD

Report No. AAL MIS-20230121018
Date of Receiving: 21/01/2023
Date of Starting: 21/01/2023
Date of Completion: 25/01/2023
Date of Reporting: 25/01/2023
Sample Quantity: 2 Litre
Sample Packing Condition: Plastic Bottle
Sample Submitted By: Customer

TEST RESULT

S. No.	Test parameters	Unit	Results	Limits as per Environment (Protection) Rules,1986 Schedule-VI General Standards for Discharge		Testing Method
				Inland Surface Water	Land for Irrigation	
1	pH Value	-	7.23	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	21.6	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	14.0	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	63.0	250 Max.	NS	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	11.0	NS	NS	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	2.4	50 Max.	NS	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	70	<100		IS 1622-1981

NS=Not Specified

End of Report

Vinay Dixit
(Microbiologist)

Ashutosh Srivastava
(SR. ANALYST)
Authorised Signatory

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ANNEXURE-V

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Survey No.244/2,
Rajiv Gandhi Infotech Park,
Hinjewadi, Pune – 411 057, India

Sample Description: **STP Outlet Water**

Sample ID: **Main Plant**
STP-100 KLD

Report No. AAL MIS-20230221001

Date of Receiving: 21/02/2023
Date of Starting: 21/02/2023
Date of Completion: 25/02/2023
Date of Reporting: 25/02/2023
Sample Quantity: 2 Litre
Sample Packing Condition: Plastic Bottle
Sample Submitted By: Customer

TEST RESULT

S. No.	Test parameters	Unit	Results	Limits as per Environment (Protection) Rules,1986 Schedule-VI General Standards for Discharge		Testing Method
				Inland Surface Water	Land for Irrigation	
1	pH Value	-	7.40	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)-2021
4	Biochemical Oxygen Demand (BOD - 3 days at 27°C)	mg/l	12.5	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	68.0	250 Max.	NS	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	10.4	NS	NS	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	1.6	50 Max.	NS	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	70	<100		IS 1622-1981

NS=Not Specified

****End of Report****

Vinay Dixit
(Microbiologist)

Ashutosh Srivastava
(SR. ANALYST)
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Website : www.aalkundli.com

TEST CERTIFICATE

Issued To: M/s Aquatech Systems (Asia) Pvt. Ltd.
Survey No.244/2,
Rajiv Gandhi Infotech Park,
Hinjewadi, Pune – 411 057, India

Sample Description: STP Outlet Water

Sample ID: Main Plant
STP-100 KLD

Report No. AAL MIS-20230320136

Date of Receiving: 20/03/2023

Date of Starting: 20/03/2023

Date of Completion: 25/03/2023

Date of Reporting: 25/03/2023

Sample Quantity: 2 Litre

Sample Packing Condition: Plastic Bottle

Sample Submitted By: Customer

TEST RESULT

S. No.	Test parameters	Unit	Results	Limits as per Environment (Protection) Rules,1986 Schedule-VI General Standards for Discharge		Testing Method
				Inland Surface Water	Land for Irrigation	
1	pH Value	-	7.51	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	16.0	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	14.0	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	77.0	250 Max.	NS	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	12.6	NS	NS	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	2.4	50 Max.	NS	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	80	<100		IS 1622-1981

NS=Not Specified

End of Report

Vinay Dixit
(Microbiologist)

Ashutosh Srivastava
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2. Total liability of our laboratory is limited to the invoice amount.
3. This report shall not be reproduced wholly or in part without written consent of the laboratory.
4. This report shall not be used in any advertising media or as evidence in the court of law without prior written consent of the laboratory.
5. The non-perishable sample received shall be destroyed after 30 days and perishable sample shall be destroyed after 7 days from the date of issue of report unless specified.

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/22-23/014 Date: 12.12.2022

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 **APRIL – 2022 to SEPTEMBER–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**
7. Last Compliance Report **_Annexure-VI**

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

Part of O.P.Jindal Group
Regd. Office : JSW Energy (barmer) Ltd., 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