

Compliance to CTO for Unit 1 & 2

SN	Condition	Compliance
1	That this Consent to Operate is valid for a period from 01/01/2016 to 31/12/2018	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. 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 NO _x NMHC PM CO	Boiler System is designed with Circulating Fluidised 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 being issued for production capacity of 2 x 135 MW (Unit 1 & 2) thermal power plant.	Being Complied
9	That the total project cost of the unit shall not exceed 5360.71 crores including the cost of land, building, plant & machinery.	Being complied.
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 all the conditions imposed vide letter no F (Tech)/Barmer(Barmer)/3(1)/2008-2009/6820-6823 dated 30/10/2012 shall be complied.	Being Complied.
12	That the Charter of Corporate Responsibility for Environment Protection specified for power plants shall be complied	Being Complied.
13	That the industry will comply with the standards as prescribed vide MOEF notification No. GSR 826(E) dated Nov-2009 with respect of National Ambient Air Quality Standards.	Being Complied.
14	That the industry shall provide & maintain adequate dust collection and Extraction system to control fugitive dust emission at coal crusher and coal Transfer points.	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.
15	That the particulate emissions from stack of various sections of power plant shall Not exceed 100 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.

16	That the industry shall provide and maintain opacity meter with each boiler stack to monitor the emission level of particulate matter. Monthly observation will be submitted to RO office along with the reason of / clarification for any recorded violation of the prescribed standards.	Being complied
17	That low NOx burners shall be installed at the 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.
18	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.
19	That for the control fugitive emission guidelines /code of practice as issued by CPCB will be followed.	Followed – being complied
20	That the project proponent shall undertake measures and ensure that no fugitive fly ash emissions take place at any point of time.	Followed – being complied
21	That the fly ash shall be collected in dry form and its 100 % utilisation shall be ensured by 28.02.13. Ash to be disposed of in the ash pond shall be through HCSD system.	Complied
22	That no industrial effluent will be discharged outside from the factory premises in to a stream or well or sewer or on land and the effluent generated from power plant shall be used for ash quenching, control of fugitive emissions and plantation.	All the effluent will be used inside the plant premises for green belt, road dust suppression and Ash Pond Dust Suppression.
23	That the industrial effluent generated from R.O. rejects, DM plant & cooling Tower shall be neutralized & will be used for cooling proposes after taking it into Water circulation tank. No industrial effluent will be discharged inside or outside The factory premises.	That the industrial effluent generated from D.M. rejects & cooling Tower is being used for cooling proposes after taking it into ETP.
24	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.	Domestic Sewage will be treated and using for in house plantation/ green belt development.

25	Ash pond shall be lined with HDPE / LDPE lining or any other 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.	Ash Pond is Lined with HDPE lining – Complied
26	That no ground water shall be abstracted without prior permission from the State Board and the CGWA	Water is being drawn from IGNP canal - No ground water is being extracted
27	That suitable flow measuring device / meters on the intake source of water, inlet and outlet of effluent treatment / sewage treatment plant shall be installed and maintained	Complied
28	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
29	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.	Ash will be utilized as per MOEF guidelines and reported.
30	That the unit shall install flow meters at inlet and outlet of STP and at outlet of ETP.	Flow meters provided at Outlet of STP and ETP
31	That the unit shall submit details of solid waste generated from the plant to Regional Officer of the State Board, Balotra.	Being Complied
32	That the Thermal power plant shall meet the limits of Boiler (specified in condition no.5) latest by 07/12/2017, as per the Notification dated 07.12.2015 issued by the Ministry of Environment, Forest and Climate Change, Government of India. Further, the industry shall also submit action plan for implementation of the aforesaid standards within one month of issue of this letter.	Plan for implementation is submitted
33	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).	Plan for implementation is submitted.

34	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
35	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
36	That the grant of the 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 provision of the act or rules made thereunder	Being Complied

File No. F(HDF)/Barmer(Barmer)/9(1)/2016-2017/9342-9344 Order No. 2016-2017/HDF/2505, Dt: 03/01/2017

Compliance to CTO for Unit 3 & 4

SN	Condition	Compliance
1	That this Consent to Operate is valid for a period from 01/12/2015 to 30/11/2018	Units are being 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. 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 NO _x NMHC PM CO	Boiler System is designed with Circulating Fluidised 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.
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 being issued for production capacity of 2 x 135 MW (Unit 1 & 2) thermal power plant.	Being Complied
9	That the total project cost of the unit shall not exceed 5360.71 crores including the cost of land, building, plant & machinery.	Being complied.
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 all the conditions imposed vide letter no F (Tech)/Barmer(Barmer)/3(1)/2008-2009/6820-6823 dated 30/10/2012 shall be complied.	Being Complied.
12	That the Charter of Corporate Responsibility for Environment Protection specified for power plants shall be complied	Being Complied.
13	That the industry will comply with the standards as prescribed vide MOEF notification No. GSR 826(E) dated Nov-2009 with respect of National Ambient Air Quality Standards.	Being Complied.
14	That the industry shall provide & maintain adequate dust collection and Extraction system to control fugitive dust emission at coal crusher and coal Transfer points.	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.
15	That the particulate emissions from stack of various sections of power plant shall Not exceed 100 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.

16	That the industry shall provide and maintain opacity meter with each boiler stack to monitor the emission level of particulate matter. Monthly observation will be submitted to RO office along with the reason of / clarification for any recorded violation of the prescribed standards.	Being complied
17	That low NOx burners shall be installed at the 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.
18	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.
19	That for the control fugitive emission guidelines /code of practice as issued by CPCB will be followed.	Followed – being complied
20	That the project proponent shall undertake measures and ensure that no fugitive fly ash emissions take place at any point of time.	Followed – being complied
21	That no industrial effluent will be discharged outside from the factory premises in to a stream or well or sewer or on land and the effluent generated from power plant shall be used for ash quenching, control of fugitive emissions and plantation.	All the effluent will be used inside the plant premises for green belt, road dust suppression and Ash Pond Dust Suppression.
22	That the industrial effluent generated from R.O. rejects, DM plant & cooling Tower shall be neutralized & will be used for cooling proposes after taking it into Water circulation tank. No industrial effluent will be discharged inside or outside The factory premises.	That the industrial effluent generated from D.M. rejects & cooling Tower is being used for cooling proposes after taking it into Water circulation tank.
23	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.	Domestic Sewage will be treated and using for in house plantation/ green belt development.
24	Ash pond shall be lined with HDPE / LDPE lining or any other 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.	Ash Pond is Lined with HDPE lining – Complied

25	That no ground water shall be abstracted without prior permission from the State Board and the CGWA	Water is being drawn from IGNP canal - No ground water is being extracted
26	That suitable flow measuring device / meters on the intake source of water, inlet and outlet of effluent treatment / sewage treatment plant shall be installed and maintained	Complied
27	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
28	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.	Ash will be utilized as per MOEF guidelines and reported.
29	That the unit shall install flow meters at inlet and outlet of STP and at outlet of ETP.	Flow meters provided at Outlet of STP and ETP
30	That the unit shall submit details of solid waste generated from the plant to Regional Officer of the State Board, Balotra.	Complied
31	That the Thermal power plant shall meet the limits of Boiler (specified in condition no.5) latest by 07/12/2017, as per the Notification dated 07.12.2015 issued by the Ministry of Environment, Forest and Climate Change, Government of India. Further, the industry shall also submit action plan for implementation of the aforesaid standards within one month of issue of this letter.	Plan for implementation is submitted
32	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).	Plan for implementation is submitted
33	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

34	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
35	That the grant of the 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 provision of the act or rules made thereunder	Being Complied

File No. F(HDF)/Barmer(Barmer)/9(1)/2016-2017/9501-9503 Order No. 2016-2017/HDF/2506, Dt: 04/01/2017

Compliance to CTO for Unit 5 & 6

SN	Condition	Compliance
1	That this Consent to Operate is valid for a period from 01/11/2016 to 31/10/2021	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 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: Boiler V: ESP : 100 mg/Nm ³ Boiler VI: ESP : 100 mg/Nm ³ DG Set (1000 KVA)	ESP is designed to comply with Stack Emission standard as stipulated.
6	That the stage III (Unit V & VI) 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 irrigation.
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 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 the unit shall not exceed 1464.40 crores including cost of land, building, plant and machinery.	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-IA(I)dated20/07/2007 while issuing EC to your project.	Being complied.
12	That all the conditions imposed vide letter no. F-Tech/Barmer (Barmer)/3(1)2008-2009/ 4403-4407 dated 20/09/2011 shall be complied.	Being Complied.
13	That the charter of Corporate Responsibility for Environment Protection specified for power plants shall be complied	Being Complied.
14	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.
15	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.
16	That the particulate emissions from stack of various sections of power plant shall Not exceed 100 mg/NM3 and continuous online arrangement for stack monitoring Of particular emissions shall be provided.	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.

17	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.
18	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.
19	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.
20	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.
21	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.
22	That Fly ash shall be collected in dry form and 100 % utilising shall be ensured by 28.02.2013. Ash to be disposed off in the pond shall be through HCSD system.	Fly ash is being collected in dry form from the operational two Units and is being lifted by M/s Shree Cement. Unutilized ash, if any, would be disposed off to the emergency ash pond through HCSD system.
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.	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 effluent generated from R.O. rejects, DM plant & cooling Tower shall be neutralized & will be used for cooling proposes after taking it into Water circulation tank. No industrial effluent will be discharged inside or outside The factory premises.	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 no ground water shall be abstracted without prior permission from the State Board and Central Ground Water Authority.	Being complied.
28	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.
29	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
30	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.	Ash will be utilized as per MOEF guidelines and reported.
31	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
32	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
33	That the grant of the 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 provision of the act or rules made thereunder	Being Complied

File No. F(HDF)/Barmer(Barmer)/12(1)/2017-2018/1505-1507; Order No. 2017-2018/HDF/2564, Dt: 30/05/2017



JSW Energy (Barmer) Limited



Part of O.P.Jindal Group

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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

SN	Condition	Compliance
1	That this Consent to Operate is valid for a period from 01/11/2016 to 31/10/2021	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 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: Boiler VII: ESP: 100 mg/Nm ³ Boiler VIII: ESP : 100 mg/Nm ³	ESP is designed to comply with Stack Emission standard as stipulated.
6	That the stage IV (Unit VII & VIII) 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 into Inland Surface Water. The main parameters for regular monitoring.	Domestic Sewage will be treated and used for green belt development irrigation.
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 being issued for production capacity of 2 x 135 MW (Unit 7 & 8) thermal plant	Noted – Being Complied.
10	That the total Project cost of the unit shall not exceed 1297.5 crores including cost of land, building, plant and machinery.	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-IA(I)dated20/07/2007 while issuing EC to your project.	Being complied.
12	That all the conditions imposed vide letter no. F-Tech/Barmer (Barmer)/3(1)2008-2009/2487-2489 dated 04/07/2011 shall be complied.	Being Complied.
13	That the Charter of Corporate Responsibility for Environment Protection specified for power plants shall be complied	Being Complied.
14	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.
15	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.

16	That the particulate emissions from stack of various sections of power plant shall Not exceed 100 mg/NM3 and continuous online arrangement for stack monitoring Of particular emissions shall be provided.	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.
17	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.
18	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.
19	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.
20	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.
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 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.	All the effluent will be used inside the plant premises for green belt, road dust suppression and Ash Pond Dust Suppression.
23	That the industrial effluent generated from R.O. rejects, DM plant & cooling Tower shall be neutralized & will be used for cooling proposes after taking it into Water circulation tank. No industrial effluent will be discharged inside or outside The factory premises.	That the industrial effluent generated from D.M. rejects & cooling Tower is being used for cooling proposes after taking it into Water circulation tank.
24	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.
25	That no ground water shall be abstracted without prior permission from the State Board and Central Ground Water Authority.	Being complied.

26	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.	Shall be complied with.
27	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
28	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.	Ash will be utilized as per MOEF guidelines and reported.
29	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
30	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
31	That the grant of the 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 provision of the act or rules made thereunder	Being Complied

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

Sr. No.	CREP points for Thermal Plant	Compliance status
1	<p>Implementation of Environmental Standards (emission & effluent) in non-compliant* Power Plants (31 & 27)</p> <ul style="list-style-type: none"> - Submission of action plan June 30, 2003 - Placement of order for Pollution of control equipment September, 2003 - Installation & commission December -31, 2005 	Project come up in 2006 – Not Applicable
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.	<p>Project come up in 2006 – Project is designed for the particulate matter emissions to 100 mg/Nm³.</p> <p>MOEF has also stipulated in EC conditions.</p>
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	<p>Development of SO₂ & NO_x emission standards for coal based plants by December 2003.</p> <ul style="list-style-type: none"> - New/ expansion power projects shall meet the limit of SO₂ & NO_x w.e.f. 1.1.2005. - Existing power plants shall meet the limit of SO₂ & NO_x w.e.f. 1.1.2006. 	Complied as per EC conditions by MOEF & CFE & CTO conditions by RSPCB
5	Install/activate opacity meters/ continuous monitoring system in all the units by December 31, 2004 with proper calibration 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.	<p>The project is Lignite Coal Based Pit head project and ES, CTO and CFE Conditions being complied.</p> <p>Reference to Mercury and Heavy metal content Ash and coal analysis report is enclosed as Annexure – IX.</p> <p>Both are well below the norms</p>
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 – Project is peat head project and designed on basis of Lignite coal from Adjacent Kapurdi and Jalipa Lignite.
	Power plants will sign fuel supply agreement (FSA)	
	Options/mechanism for setting up of coal washeries as a long term measure	
	* 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 utilisation 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 peat head project and designed on basis of Lignite coal from Adjacent Kapurdi and Jalipa Lignite.

STACK EMISSION MONITORING RESULTS APR – 2019 to MAR – 2019

Month: Apr, 2019

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	16.0	16.3	16.8	18.7	15.1	15.7	17.4	16.6
2	Flow	Nm ³ /Sec	131.2	128.9	130.7	144.2	125.1	129.6	140.9	131.4
3	Stack Exit Temp.	°C	124	138	146	150	120	122	129	139
4	Particulate Matter	mg/Nm ³	48.6	52.3	46.7	45.0	51.6	50.4	48.2	54.2
5	Sulphur Dioxide	mg/Nm ³	365.1	533.0	519.1	492.2	363.6	390.0	497.5	476
6	Oxides of Nitrogen	mg/Nm ³	148.0	158.9	185.6	206.9	152.0	160.2	172.2	156

Month: May, 2019

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	17.1	16.3	17.8	15.7	16.1	18.4	18.2	17.9
2	Flow	Nm ³ /Sec	131.6	135.1	145.3	127.2	132.4	144.4	146.3	145.4
3	Stack Exit Temp.	°C	150	120	126	129	123	142	132	128
4	Particulate Matter	mg/Nm ³	54.2	50.8	52.1	49.7	55.8	48.6	52.9	54.7
5	Sulphur Dioxide	mg/Nm ³	468.5	451.9	488.2	468.6	448.1	459.5	465.9	467.0
6	Oxides of Nitrogen	mg/Nm ³	161.8	145.0	156.4	155.7	141.2	140.2	159.9	150.7

Month: Jun, 2019

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	17.4	16.7	15.9	18.5	17.0	18.2	17.3	16.2
2	Flow	Nm ³ /Sec	135.6	127.0	126.0	138.8	133.7	137.5	132.9	125.0
3	Stack Exit Temp.	°C	145	155	138	161	141	158	151	149
4	Particulate Matter	mg/Nm ³	54.6	51.3	49.8	56.3	44.8	53.7	48.9	46.3
5	Sulphur Dioxide	mg/Nm ³	588.0	543.7	497.9	527.4	525.9	594.7	522.1	525.0
6	Oxides of Nitrogen	mg/Nm ³	191.9	176.3	145.1	157.9	172.0	171.0	158.9	159.6

Month: Jul' 2019

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	15.9	16.5		17.7	16.8	17.9	17.3	17.6
2	Flow	Nm ³ /Sec	125.4	127.6		140.6	130.6	136.5	135.1	136.1
3	Stack Exit Temp.	°C	140	148		137	146	154	144	148
4	Particulate Matter	mg/Nm ³	51.7	50.5	S/D	54.3	48.7	52.4	46.8	45.1
5	Sulphur Dioxide	mg/Nm ³	495.9	464.7		492.5	503	511.9	497.9	523.6
6	Oxides of Nitrogen	mg/Nm ³	164.2	143.1		155.5	177.9	165.5	153.1	161.3

Month: Aug' 2019

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	13.4	15.1	14.9	15.6	13.9	13.4	13.7
2	Flow	Nm ³ /Sec	118.9	112.6	124.7	124.6	127.9	118.3	116.0	117.1
3	Stack Exit Temp.	°C	129	125	132	127	135	120	114	119
4	Particulate Matter	mg/Nm ³	45.7	54.6	49.8	47.2	55.5	52.2	50.7	53.2
5	Sulphur Dioxide	mg/Nm ³	452.4	393.4	495.6	443.6	453.6	420.3	373.1	383.4
6	Oxides of Nitrogen	mg/Nm ³	143.5	127.0	153.9	154.1	166.1	165.2	134.1	150.9

Month: Sep' 2019

SN	Parameters	UOM	Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII
1	Average Velocity	m/Sec	16.0	14.7	15.7	15.4	15.9	14.4	15.7	16.0
2	Flow	Nm ³ /Sec	127.1	118.5	122.4	125.0	122.3	118.9	126.6	127.1
3	Stack Exit Temp.	°C	148	142	156	139	162	132	142	148
4	Particulate Matter	mg/Nm ³	46.7	45.0	51.6	50.4	54.6	51.3	57.8	46.7
5	Sulphur Dioxide	mg/Nm ³	572.8	528.2	591.8	501.5	526.7	477.0	500.2	572.8
6	Oxides of Nitrogen	mg/Nm ³	188.2	159.6	160.5	160.2	167.8	173.4	170.6	188.2

Unit # 1 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-19	Average	257	82	22
	Max	443	166	53
May-19	Average	316	123	43
	Max	463	198	74
Jun-19	Average	235	91	42
	Max	413	155	77
Jul-19	Average	223	136	40
	Max	429	297	70
Aug-19	Average	120	40	26
	Max	370	79	57
Sep-19	Average	148	23	12
	Max	411	128	64

Unit # 2 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-19	Average	195	56	23
	Max	430	118	50
May-19	Average	277	74	27
	Max	467	171	45
Jun-19	Average	376	169	52
	Max	497	505	70
Jul-19	Average	267	134	60
	Max	446	239	78
Aug-19	Average	245	150	55
	Max	390	223	95
Sep-19	Average	278	142	49
	Max	421	201	72

Unit # 3 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-19	Average	354	127	38
	Max	739	174	60
May-19	Average	401	142	76
	Max	496	216	96
Jun-19	Average	280	102	57
	Max	453	196	77
Jul-19	Average	11	16	4
	Max	190	82	70
Aug-19	Average	194	89	56
	Max	266	156	71
Sep-19	Average	244	98	69
	Max	340	177	75

Unit # 4 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-19	Average	342	73	54
	Max	458	161	67
May-19	Average	329	87	42
	Max	424	121	59
Jun-19	Average	302	65	26
	Max	470	113	75
Jul-19	Average	232	92	39
	Max	433	272	75
Aug-19	Average	217	149	49
	Max	353	210	84
Sep-19	Average	320	133	64
	Max	396	170	80

Unit # 5 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-19	Average	383	53	29
	Max	496	118	43
May-19	Average	350	74	38
	Max	428	211	48
Jun-19	Average	274	88	52
	Max	445	186	63
Jul-19	Average	155	52	51
	Max	397	171	77
Aug-19	Average	222	103	41
	Max	387	189	58
Sep-19	Average	289	146	44
	Max	416	238	51

Unit # 6 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-19	Average	365	63	51
	Max	440	139	77
May-19	Average	146	61	23
	Max	429	202	50
Jun-19	Average	199	54	30
	Max	420	115	48
Jul-19	Average	220	97	24
	Max	424	219	41
Aug-19	Average	246	95	31
	Max	407	251	39
Sep-19	Average	257	181	34
	Max	411	227	37

Unit # 7 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-19	Average	367	108	53
	Max	471	218	68
May-19	Average	326	96	53
	Max	427	212	77
Jun-19	Average	262	108	39
	Max	470	211	50
Jul-19	Average	228	71	50
	Max	429	250	57
Aug-19	Average	273	50	53
	Max	415	105	76
Sep-19	Average	245	84	53
	Max	369	129	77

Unit # 8 - Continuous Emission Monitoring System-CEMS DATA

Month		SOX mg/m3	NOX mg/m3	SPM mg/m3
Apr-19	Average	356	97	42
	Max	560	158	71
May-19	Average	292	133	58
	Max	416	170	73
Jun-19	Average	231	112	51
	Max	446	201	73
Jul-19	Average	203	123	57
	Max	431	195	79
Aug-19	Average	220	133	44
	Max	432	195	74
Sep-19	Average	225	83	48
	Max	404	165	80

Ambient Air Quality Data- APR, 2019 – SEP, 2019

Month – Apr' 2019

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	Main Gate	40.48	15.21	19.56	0.43	15.21
2	Ash pond	36.38	9.86	15.03	1.49	9.86
3	Reservoir Area	38.13	31.39	22.61	1.29	31.39
4	Bhadresh Village	75.18	17.33	27.09	0.24	39.89
5	Isharpura Village	75.29	14.03	24.49	0.26	39.78
6	Chuli Village	76.98	15.71	23.28	0.25	37.99

Month – May' 2019

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	Main Gate	44.11	13.78	19.48	0.33	27.89
2	Ash pond	32.33	5.48	15.10	1.43	10.71
3	Reservoir Area	35.64	30.54	22.59	1.18	17.01
4	Bhadresh Village	76.69	17.71	27.21	0.23	40.45
5	Isharpura Village	76.64	14.17	24.60	0.26	40.23
6	Chuli Village	77.63	15.78	23.91	0.24	38.43

Month – Jun' 2019

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	Main Gate	39.15	16.28	15.93	0.42	27.36
2	Ash pond	32.64	1.22	15.03	1.51	10.91
3	Reservoir Area	33.33	26.91	22.59	1.71	10.63
4	Bhadresh Village	77.98	18.03	27.66	0.24	41.14
5	Isharpura Village	77.81	14.51	25.34	0.28	40.80
6	Chuli Village	78.93	16.06	24.31	0.24	39.06

Month – Jul' 2019

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	Main Gate	40	15	15	0.40	28
2	Ash pond	40	17	14	1.54	11
3	Reservoir Area	58	23	12	0.43	17
4	Bhadresh Village	76	18	27	0.23	40
5	Isharpura Village	75	14	25	0.27	39
6	Chuli Village	77	16	23	0.24	38

Month – Aug' 2019

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	Main Gate	40	S/D	14	0.36	28
2	Ash pond	24	14	19	1.91	11
3	Reservoir Area	38	24	12	1.56	9
4	Bhadresh Village	73	18	25	0.20	39
5	Isharpura Village	73	14	24	0.26	38
6	Chuli Village	75	15	24	0.24	37

Month – Sep' 2019

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	Main Gate	37	S/D	13	0.28	27
2	Ash pond	23	18	20	1.98	12
3	Reservoir Area	31	16	21	1.04	9
4	Bhadresh Village	75	18	25	0.21	39
5	Isharpura Village	75	14	24	0.26	39
6	Chuli Village	76	16	25	0.24	38

Effluent Water Quality APR, 2019 – SEP, 2019

SN	Parameters	UoM	CPCB Limits	Results					
				April	May	June	July	Aug	Sept
1.	pH		6.5-8.5	6.95	7.03	7.1	7.25	7.3	7.0
2.	Biochemical Oxygen Demand (BOD) @ 27Deg C for 3 days	mg/L	< 30.0	22.5	23	23.5	23.5	23.75	22.5
3.	Chemical Oxygen Demand (COD)	mg/L	< 250	76	73	74.75	79.75	70.75	74.0
4.	Total Kjeldhal Nitrogen as NH3	mg/L	< 100	8.64	8.6	8.9	8.45	7.8	8.65
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	2.2	2.47	1.925	2.95	2.83	2.1
7.	Copper as Cu	mg/L	< 1	0.022	.0155	.014	0.0163	0.0123	0.014
8.	Zinc as Zn	mg/L	< 1	0.297	0.37	0.365	0.325	0.435	0.363
9.	Iron as Fe	mg/L	< 1	0.347	0.453	0.4325	0.393	0.445	0.418
10.	Total Suspended Solid	mg/L	< 100	36	34.75	38.25	32	43	30.0
11.	Ammonical Nitrogen as N	mg/L	< 50	4.89	5.6	5.6	5.47	5.7	5.21
12.	Nitrate Nitrogen	mg/L	< 10	2.29	2.03	2.15	1.83	1.73	2.0
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



ARIHANT ANALYTICAL LABORATORY PVT. LTD.

AN ISO 9001:2015, ISO 14001:2004, OHSAS 18001:2007 CERTIFIED LABORATORY

272, Phase-IV, Sec-57, HSIIDC, Kundli, Sonapat-131028 (Haryana)

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Website : www.aalkundli.com

TEST CERTIFICATE

Page 1 of 1

Issued To:	M/s Environze Global Limited 110, Laxmi Deep Tower, District Centre Laxmi Nagar, Delhi – 110 092	Report No.	AAL WQT-20190422018
Sample Description:	One Sample described as STP Outlet Water, was received.	Date of Receiving:	22/04/2019
Sample ID:	JSW Plant	Date of Starting:	22/04/2019
		Date of Completion:	27/04/2019
		Date of Reporting:	27/04/2019
		Sample Quantity:	1 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	-	6.72	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	24.4	100 Max.	200 Max.	IS 3025(P-17)-1984
3	Oil & Grease	mg/l	<2.0	10 Max.	10 Max.	IS 3025(P-39)-1991
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	72.0	250 Max.	-	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	8.4	-	-	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	<1.0	50 Max.	-	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	27	<100	-	IS 1622-1981

End of Report


Vinay Dixit
 (Microbiologist)
 Authorized Signatory


Ashutosh Srivastava
 (SR. ANALYST)
 Authorised Signatory

- Note:**
1. The Result Indicated above refer to the tested sample and listed test parameters only, endorsement of products is neither inferred not implied.
 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 one month and perishable sample shall be destroyed after one week from the date of issue of report unless specified.



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Website : www.aalkundli.com

TEST CERTIFICATE

Page 1 of 1


Issued To:	M/s Environze Global Limited 110, Laxmi Deep Tower, District Centre Laxmi Nagar, Delhi – 110 092	Report No.	AAL WQT-20190513007
Sample Description:	One Sample described as STP Outlet Water, was received.	Date of Receiving:	13/05/2019
Sample ID:	JSW Plant	Date of Starting:	13/05/2019
		Date of Completion:	18/05/2019
		Date of Reporting:	18/05/2019
		Sample Quantity:	1 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	-	6.93	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)-1991
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	84.0	250 Max.	-	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	7.6	-	-	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	<1.0	50 Max.	-	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	22	<100	<100	IS 1622-1981

End of Report


Vinay Dixit
 (Microbiologist)
 Authorized Signatory


Ashutosh Srivastava
 (SR. ANALYST)
 Authorised Signatory

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272, Phase-IV, Sec-57, HSIIDC, Kundli, Sonapat-131028 (Haryana)

Ph. : 7082301442, 9250014551 Email : aalkundli@gmail.com

Website : www.aalkundli.com

TEST CERTIFICATE

Page 1 of 1

Issued To:	M/s Environze Global Limited 110, Laxmi Deep Tower, District Centre Laxmi Nagar, Delhi – 110 092	Report No.	AAL WQT-20190610012
Sample Description:	One Sample described as STP Outlet Water , was received.	Date of Receiving:	10/06/2019
Sample ID:	JSW Plant	Date of Starting:	10/06/2019
		Date of Completion:	15/06/2019
		Date of Reporting:	15/06/2019
		Sample Quantity:	1 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	-	6.76	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	18.6	100 Max.	200 Max.	IS 3025(P-17)-1984
3	Oil & Grease	mg/l	<2.0	10 Max.	10 Max.	IS 3025(P-39)-1991
4	Biochemical Oxygen Demand (BOD - 3 days at 27°C)	mg/l	17.5	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	90.0	250 Max.	-	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	9.4	-	-	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	1.6	50 Max.	-	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	26	<100	-	IS 1622-1981

End of Report


Vinay Dixit
 (Microbiologist)
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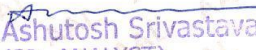
Issued To:	M/s Environze Global Limited 110, Laxmi Deep Tower, District Centre Laxmi Nagar, Delhi – 110 092	Report No.	AAL WQT-20190715007
Sample Description:	One Sample described as STP Outlet Water , was received.	Date of Receiving:	15/07/2019
Sample ID:	JSW Plant	Date of Starting:	15/07/2019
		Date of Completion:	20/07/2019
		Date of Reporting:	20/07/2019
		Sample Quantity:	1 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	-	6.89	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	23.2	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	20.0	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	105.0	250 Max.	-	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	12.4	-	-	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	50	<100		IS 1622-1981

End of Report


Vinay Dixit
 (Microbiologist)
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Ashutosh Srivastava
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Issued To: M/s Environze Global Limited
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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-20190812009

Date of Receiving: 12/08/2019

Date of Starting: 12/08/2019

Date of Completion: 17/08/2019

Date of Reporting: 17/08/2019

Sample Quantity: 1 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	-	6.73	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	24.0	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	88.0	250 Max.	-	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	10.4	-	-	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	2.2	50 Max.	-	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	26	<100	-	IS 1622-1981

End of Report

Vinay Dixit
 (Microbiologist)
 Authorized Signatory

Ashutosh Srivastava
 (SR. ANALYST)
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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-20190923012

Date of Receiving: 23/09/2019

Date of Starting: 23/09/2019

Date of Completion: 28/09/2019

Date of Reporting: 28/09/2019

Sample Quantity: 1 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	-	6.71	5.5 - 9.0	5.5 - 9.0	IS 3025(P-11)-1983
2	Total Suspended Solids	mg/l	22.3	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	18.5	30 Max.	100 Max.	IS 3025(P-44)-1993
5	Chemical Oxygen Demand (COD)	mg/l	92.0	250 Max.	-	IS 3025(P-58)-2006
6	Total Nitrogen (as N)	mg/l	10.6	-	-	IS 3025(P-34)-1988
7	Ammonical Nitrogen (as N)	mg/l	2.4	50 Max.	-	IS 3025(P-34)-1988
8	Faecal Coliform	MPN/100ml	34	<100	-	IS 1622-1981

End of Report

Vinay Dixit
 Authorized Signatory (Regist)

Ashutosh Srivastava
 (SR. ANALYST)
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