



CEG Tower, 1st & 2nd Floor, B-11G, Industrial Area,
Malviya Nagar, Jaipur, Rajasthan – 302017: India
Tel: 0141-4805672 | Email – lab@irclass.org | Website : www.isspllab.com

TEST REPORT

Report No.	ISSPL/EN/24-25/00260/A		Date	20/08/2024
1.	Name & address of Customer	KEPCO Plant Service & Engineering Co. Ltd. Talwandi Sabo Power Ltd., 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab		
2.	Reference No.	Your TRF Dated: 17/08/2024 (Reg. No. 98740)		
3.	Material Identification with details	Boiler Stack: Date and Time of Sampling: 13/08/2024 (11:00 am to 11:28 am), Qty. 1 No.		
4.	Sample code	98740		
5.	Date of sampling	13/08/2024		
6.	Date of Sample testing	17/08/2024 To 20/08/2024		
7.	Sampling duration (in minutes)	28 Min.		
8.	Sampling Location	Boiler Stack, Third Unit - (Unit -1) (660 MW)		
9.	Sampling Protocol	IS:11255 (Pt-1) 1985 (RA 2014)		
10.	Type of stack	MS Circular		
11.	Stack attached to	-		
12.	Stack Diameter (in meters)	7.2		
13.	Stack height (in meters)	275		
14.	Type and quantity of fuel used	Coal		
15.	Instrument Code & Calibration Status	ISSPL/INS/C/133		
16.	Control Measures if any	-		
17.	Ambient Temperature (oC)	36°C		
18.	Flue Gas Temperature (oC)	130°C		

RESULTS

S.No.	Test Parameters	Test Method	Results	Units	Detection Limit
3I. Chemical Testing:-					
1. Atmospheric Pollution:-					
1	Particulate Matter (PM)	IS 11255 (Part 1) 1985, RA:	36.2	mg/Nm3	1

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Report No.		ISSPL/EN/24-25/00260/A			Date	20/08/2024
S.No.	Test Parameters	Test Method	Results	Units	Detection Limit	
		2019				
2	Sulphur dioxide (SO ₂)	USEPA 6C: 1996/By Flue Gas Analyzer	1140	mg/Nm ³	0.3	
3	Oxides of Nitrogen (NO _x)	USEPA 7E: 1990/By Flue Gas Analyzer	196.2	mg/Nm ³	0.2	
4	Carbon Monoxide (CO)	USEPA 10: 1996/By Flue Gas Analyzer	4.60	mg/Nm ³	0.1	
5	Carbon Dioxide as CO ₂	USEPA 3A:1989	10.3	%	0.1	
6	Oxygen as O ₂	USEPA 3A:1989	7.2	%	0.1	
7	Mercury (Hg)	USEPA 29:1996/101A:1991	BLQ(LOQ: 0.001)	mg/Nm ³	0.001	

BLQ= Below Limit of Quantification, LOQ= Limit of Quantification

Remark: Sampling done by ISSPL Representative (Mr. Pokhar Nath Yogi).

End of the Report

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TEST REPORT

Report No.	ISSPL/EN/24-25/00260/B	Date	20/08/2024
1. Name & address of Customer	KEPCO Plant Service & Engineering Co. Ltd. Talwandi Sabo Power Ltd., 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab		
2. Reference No.	Your TRF Dated: 17/08/2024 (Reg. No. 98740)		
3. Material Identification with details	Boiler Stack: Date and Time of Sampling: 13/08/2024 (11:00 am to 11:28 am), Qty. 1 No.		
4. Sample code	98740		
5. Date of sampling	13/08/2024		
6. Date of Sample testing	17/08/2024 To 20/08/2024		
7. Sampling duration (in minutes)	28 Min.		
8. Sampling Location	Boiler Stack, Third Unit - (Unit -1) (660 MW)		
9. Sampling Protocol	IS:11255 (Pt-1) 1985 (RA 2014)		
10. Type of stack	MS Circular		
11. Stack attached to	-		
12. Stack Diameter (in meters)	7.2		
13. Stack height (in meters)	275		
14. Type and quantity of fuel used	Coal		
15. Instrument Code & Calibration Status	ISSPL/INS/C/133		
16. Control Measures if any	-		
17. Ambient Temperature (oC)	36°C		
18. Flue Gas Temperature (oC)	130°C		

RESULTS

S.No.	Test Parameters	Test Method	Results	Units	Detection Limit
3I. Chemical Testing:-					
1. Atmospheric Pollution:-					
1	Velocity of Gas	CPCB Emission	25.9	m/s	Not Specified

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TEST REPORT

Report No.	ISSPL/EN/24-25/00260/B			Date	20/08/2024
S.No.	Test Parameters	Test Method	Results	Units	Detection Limit
		Regulation(Part -3)			
2	Temperature	CPCB Emission Regulation(Part -3)	130	°C	5
3	Moisture	USEPA 4	11.9	%	1

BLQ= Below Limit of Quantification, LOQ= Limit of Quantification

Remark: Sampling done by ISSPL Representative (Mr. Pokhar Nath Yogi).

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TEST REPORT

Report No.	ISSPL/EN/24-25/00261/A	Date	20/08/2024
1. Name & address of Customer	KEPCO Plant Service & Engineering Co. Ltd. Talwandi Sabo Power Ltd., 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab		
2. Reference No.	Your TRF Dated: 17/08/2024(Reg. No. 98739)		
3. Material Identification with details	Boiler Stack: Date and Time of Sampling: 13/08/2024 (12:15 pm to 12:42 pm), , Qty. 1 No.		
4. Sample code	98739		
5. Date of sampling	13/08/2024		
6. Date of Sample testing	17/08/2024 To 18/05/2024		
7. Sampling duration (in minutes)	27 Min.		
8. Sampling Location	Boile Stack – First Unit – (Unit-2) (660 MW)		
9. Sampling Protocol	IS:11255 (Pt-1) 1985 (RA 2014)		
10. Type of stack	MS Circular		
11. Stack attached to	-		
12. Stack Diameter (in meters)	7.2		
13. Stack height (in meters)	275		
14. Type and quantity of fuel used	Coal		
15. Instrument Code & Calibration Status	ISSPL/INS/C/134		
16. Control Measures if any	-		
17. Ambient Temperature (oC)	39°C		
18. Flue Gas Temperature (oC)	132°C		

RESULTS

S.No.	Test Parameters	Test Method	Results	Units	Detection Limit
1	Particulate Matter (PM)	IS 11255 (Part 1) 1985, RA:	35.4	mg/Nm3	1

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TEST REPORT


Report No.		ISSPL/EN/24-25/00261/A		Date	20/08/2024
S.No.	Test Parameters	Test Method	Results	Units	Detection Limit
1		2019			
2	Sulphur dioxide (SO ₂)	USEPA 6C: 1996/By Flue Gas Analyzer	1071	mg/Nm ³	0.3
3	Oxides of Nitrogen (NO _X)	USEPA 7E: 1990/By Flue Gas Analyzer	189.2	mg/Nm ³	0.2
4	Carbon Monoxide (CO)	USEPA 10: 1996/By Flue Gas Analyzer	4.3	mg/Nm ³	0.1
5	Carbon Dioxide (CO ₂)	USEPA 3A:1989	10.6	%	0.1
6	Oxygen as O ₂	USEPA 3A:1989	7.0	%	0.1
7	Mercury (Hg)	USEPA 29:1996/101A:1991	BLQ(LOQ 0.001)	mg/Nm ³	0.001

BLQ= Below Limit of Quantification, LOQ= Limit of Quantification

Remark: Sampling done by ISSPL Representative (Mr. Pokhar Nath Yogi).

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TEST REPORT

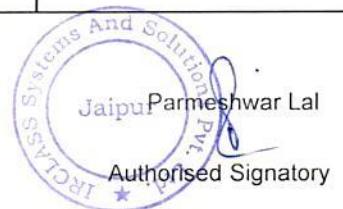
Report No.	ISSPL/EN/24-25/00261/B	Date	20/08/2024
1. Name & address of Customer	KEPCO Plant Service & Engineering Co. Ltd. Talwandi Sabo Power Ltd., 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab		
2. Reference No.	Your TRF Dated: 17/08/2024(Reg. No. 98739)		
3. Material Identification with details	Boiler Stack: Date and Time of Sampling: 13/08/2024 (12:15 pm to 12:42 pm), , Qty. 1 No.		
4. Sample code	98739		
5. Date of sampling	13/08/2024		
6. Date of Sample testing	17/08/2024 To 18/05/2024		
7. Sampling duration (in minutes)	27 Min.		
8. Sampling Location	Boile Stack – First Unit– (Unit-2) (660 MW)		
9. Sampling Protocol	IS:11255 (Pt-1) 1985 (RA 2014)		
10. Type of stack	MS Circular		
11. Stack attached to	-		
12. Stack Diameter (in meters)	7.2		
13. Stack height (in meters)	275		
14. Type and quantity of fuel used	Coal		
15. Instrument Code & Calibration Status	ISSPL/INS/C/134		
16. Control Measures if any	-		
17. Ambient Temperature (oC)	39°C		
18. Flue Gas Temperature (oC)	132°C		

RESULTS

S.No.	Test Parameters	Test Method	Results	Units	Detection Limit
1	Velocity of Gas	CPCB Emission	26.2	m/s	Not Specified

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Report No.		ISSPL/EN/24-25/00261/B		Date	20/08/2024
S.No.	Test Parameters	Test Method	Results	Units	Detection Limit
1		Regulation(Part -3)			
2.	Temperature	CPCB Emission Regulation(Part -3)	119	°C	5
3.	Moisture	USEPA 4	13.4	%	1

BLQ= Below Limit of Quantification, LOQ= Limit of Quantification

Remark: Sampling done by ISSPL Representative (Mr. Pokhar Nath Yogi).

****End of the Report****

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TEST REPORT

Report No.	ISSPL/EN/24-25/00262/A	Date	20/08/2024
1. Name & address of Customer	KEPCO Plant Service & Engineering Co. Ltd. Talwandi Sabo Power Ltd., 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab		
2. Reference No.	Your TRF Dated: 16/05/2024(Reg. No. 98738)		
3. Material Identification with details	Boiler Stack: Date and Time of Sampling: 13/08/2024 (12:01 pm to 12:20 pm), Qty. 1 No.		
4. Sample code	98738		
5. Date of sampling	13/08/2024		
6. Date of Sample testing	17/08/2024 To 20/08/2024		
7. Sampling duration (in minutes)	19 Min.		
8. Sampling Location	Boile Stack – Second Unit – (Unit-3) (660 MW)		
9. Sampling Protocol	IS:11255 (Pt-1) 1985 (RA 2014)		
10. Type of stack	MS Circular		
11. Stack attached to	-		
12. Stack Diameter (in meters)	7.2		
13. Stack height (in meters)	275		
14. Type and quantity of fuel used	-		
15. Instrument Code & Calibration Status	ISSPL/INS/C/134		
16. Control Measures if any	-		
17. Ambient Temperature (oC)	39°C		
18. Flue Gas Temperature (oC)	116°C		

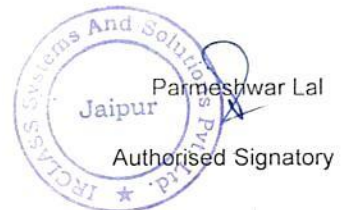
RESULTS

S.No.	Test Parameters	Test Method	Results	Units	Detection Limit
3I. Chemical Testing:-					
1. Atmospheric Pollution:-					
1	Particulate Matter (PM)	IS 11255 (Part 1) 1985, RA:	37.6	mg/Nm3	1

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TEST REPORT

Report No.		ISSPL/EN/24-25/00262/A			Date	20/08/2024
S.No.	Test Parameters	Test Method	Results	Units	Detection Limit	
1		2019				
2	Sulphur dioxide (SO ₂)	USEPA 6C: 1996/By Flue Gas Analyzer	1165	mg/Nm ³	0.3	
3	Oxides of Nitrogen (NO _X)	USEPA 7E: 1990/By Flue Gas Analyzer	174.5	mg/Nm ³	0.2	
4	Carbon Monoxide (CO)	USEPA 10: 1996/By Flue Gas Analyzer	3.48	mg/Nm ³	0.1	
5	CO ₂	USEPA 3A:1989	10.7	%	0.1	
6	O ₂	USEPA 3A:1989	7.2	%	0.1	
7	Mercury (Hg)	USEPA 29:1996/101A:1991	BLQ(LOQ 0.001)	mg/Nm ³	0.001	

BLQ= Below Limit of Quantification, LOQ= Limit of Quantification
Remark: Sampling done by ISSPL Representative (Mr. Pokhar Nath Yogi).

End of the Report

Reviewed By

IRCLASS Systems And Solutions Pvt. Ltd.
Jaipur
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TEST REPORT

Report No.	ISSPL/EN/24-25/00262/B	Date	20/08/2024
1. Name & address of Customer	KEPCO Plant Service & Engineering Co. Ltd. Talwandi Sabo Power Ltd., 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab		
2. Reference No.	Your TRF Dated: 16/05/2024(Reg. No. 98738)		
3. Material Identification with details	Boiler Stack: Date and Time of Sampling: 13/08/2024 (12:01 pm to 12:20 pm), Qty. 1 No.		
4. Sample code	98738		
5. Date of sampling	13/08/2024		
6. Date of Sample testing	17/08/2024 To 20/08/2024		
7. Sampling duration (in minutes)	19 Min.		
8. Sampling Location	Boile Stack – Second Unit – (Unit-3) (660 MW)		
9. Sampling Protocol	IS:11255 (Pt-1) 1985 (RA 2014)		
10. Type of stack	MS Circular		
11. Stack attached to	-		
12. Stack Diameter (in meters)	7.2		
13. Stack height (in meters)	275		
14. Type and quantity of fuel used	-		
15. Instrument Code & Calibration Status	ISSPL/INS/C/134		
16. Control Measures if any	-		
17. Ambient Temperature (oC)	39°C		
18. Flue Gas Temperature (oC)	116°C		

RESULTS

S.No.	Test Parameters	Test Method	Results	Units	Detection Limit
3I. Chemical Testing:-					
1. Atmospheric Pollution:-					
1	Velocity of Gas	CPCB Emission	25.7	m/s	Not Specified

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TEST REPORT

Report No.		ISSPL/EN/24-25/00262/B		Date	20/08/2024
S.No.	Test Parameters	Test Method	Results	Units	Detection Limit
1		Regulation(Part -3)			
2	Temperature	CPCB Emission Regulation(Part -3)	118	°C	5
3	Moisture	USEPA 4	10.6	%	1

BLQ= Below Limit of Quantification, LOQ= Limit of Quantification

Remark: Sampling done by ISSPL Representative (Mr. Pokhar Nath Yogi).

****End of the Report****

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TEST REPORT

Report No.	ISSPL/EN/24-25/00276	Date	20/08/2024
1. Name & address of Customer	KEPCO Plant Service & Engineering Co. Ltd. Talwandi Sabo Power Ltd., 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab		
2. Reference No.	Your TRF Dated: 17/08/2024 (Reg.No. 98724)		
3. Material Identification with details	Ambient Air Quality Monitoring: Qty. 1 No.		
4. Date of Sampling	14/08/2024 - 15/08/2024		
5. Time of Sampling	08:50 am to 08:50 am		
6. Sampling Location	Station No.1 (CAAQMS)		
7. Sampling Protocol	IS:5182 (Pt-14) 2000		
8. Duration of Sampling (Minutes)	1440 Min.		
9. Test Started On	17/08/2024		
10. Test Completed On	20/08/2024		
11. Date of sample Testing	17/08/2024 To 20/08/2024		
12. Nature & Activity of the Unit	Human and Plant Site Activities		
13. Ambient Temperature (oC)	Min. 28°C, Max. 38°C		
14. Weather Condition during Monitoring	Cloudy		
15. Instrument Code & Calibration Status	ISSPL/INS/C/121, ISSPL/INS/C/129, ISSPL/INS/C/197		

RESULTS

S.No.	Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit
I.Chemical Parameter:-						
1. Atmospheric Pollution						
1	Sulphur Dioxide (as SO2)	IS:5182 (Part 2)-2001, Reaff :2017	13.0	µg/m ³	80 (Max.)	4
2	Nitrogen Dioxide(as NO2)	IS:5182 (Part 6)-2006, Reaff :2017	24.8	µg/m ³	80 (Max.)	6

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TEST REPORT

Report No.		ISSPL/EN/24-25/00276			Date	20/08/2024	
S.No.	Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit	
3	Particulate Matter (as PM2.5)	IS:5182 (Part 24):2019	40.4	µg/m ³	60 (Max.)	1	
4	Particulate Matter (as PM10)	IS:5182 (Part 23)-2006, Reaff:2017	82.6	µg/m ³	100 (Max.)	2	
5	Ammonia (as Total ammonia-N)	IS:5182 (Part 25):2018	13.0	µg/m ³	400 (Max.)	0.1	
6	Ozone (as O3)	IS 5182 (P-9):1974, Reaff:2014	27.0	µg/m ³	180 (Max.)	1	
7	Carbon Monoxide (as CO)	IS 5182 (Part - 10):1999	0.66	mg/m ³	4 (Max.)	0.02	
8	Benzene	IS: 5182 (Part 11):2006 Reaff. 2017	BLQ(LOQ 1.0)	µg/m ³	5.0 (Max.)	1.0	
9	Benzo(a)pyrene	IS: 5182 (Part-12)-2004, Reaff:2014	BLQ(LOQ:0.0005)	ng/m ³	1.0 (Max.)	0.0005	
10	Nickel (as Ni)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m ³	20.0 (Max.)	0.5	
11	Arsenic (as As)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m ³	6.0 (Max.)	0.5	
12	Lead (as Pb)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.0005)	µg/m ³	1.0 (Max.)	0.0005	

BLQ= Below Limit of Quantification, LOQ= Limit of Quantification

*NAAQS- National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-se.-3(i)] 16.11.2009.

Remark: Sampling done by ISSPL Representative (Mr. Pokhar Nath Yogi).

End of the Report

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TEST REPORT

Report No.	ISSPL/EN/24-25/00277	Date	20/08/2024
1. Name & address of Customer	KEPCO Plant Service & Engineering Co. Ltd. Talwandi Sabo Power Ltd., 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab		
2. Reference No.	Your TRF Dated: 17/08/2024 (Reg.No. 98723)		
3. Material Identification with details	Ambient Air Quality Monitoring: Qty. 1 No.		
4. Date of Sampling	14/05/2024 - 15/05/2024		
5. Time of Sampling	09:30 am to 09:30 am		
6. Sampling Location	Station No.3 (CAAQMS)		
7. Sampling Protocol	IS:5182 (Pt-14) 2000		
8. Duration of Sampling (Minutes)	1440 Min.		
9. Test Started On	17/08/2024		
10. Test Completed On	20/08/2024		
11. Date of sample Testing	17/08/2024 To 20/08/2024		
12. Nature & Activity of the Unit	Human and Plant Site Activities		
13. Ambient Temperature (oC)	Min. 28°C, Max. 38°C		
14. Weather Condition during Monitoring	Cloudy		
15. Instrument Code & Calibration Status	ISSPL/INS/C/192, ISSPL/INS/C/209, ISSPL/INS/C/127		

RESULTS

S.No.	Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit
I. Chemical Parameter:-						
1. Atmospheric Pollution						
1	Sulphur Dioxide (as SO ₂)	IS:5182 (Part 2)-2001, Reaff :2017	12.7	µg/m ³	80 (Max.)	4
2	Nitrogen Dioxide(as NO ₂)	IS:5182 (Part 6)-2006, Reaff :2017	26.4	µg/m ³	80 (Max.)	6



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Report No.		ISSPL/EN/24-25/00277			Date	20/08/2024
S.No.	Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit
3	Particulate Matter (as PM2.5)	IS:5182 (Part 24):2019	42.6	µg/m ³	60 (Max.)	1
4	Particulate Matter (as PM10)	IS:5182 (Part 23)-2006, Reaff:2017	79.8	µg/m ³	100 (Max.)	2
5	Ammonia (as Total ammonia-N)	IS:5182 (Part 25):2018	16.0	µg/m ³	400 (Max.)	0.1
6	Ozone (as O3)	IS 5182 (P-9):1974, Reaff:2014	28.0	µg/m ³	180 (Max.)	1
7	Carbon Monoxide (as CO)	IS 5182 (Part - 10):1999	0.70	mg/m ³	4 (Max.)	0.02
8	Benzene	IS: 5182 (Part 11):2006 Reaff. 2017	BLQ(LOQ 1.0)	µg/m ³	5.0 (Max.)	1.0
9	Benzo(a)pyrene	IS: 5182 (Part-12)-2004, Reaff:2014	BLQ(LOQ:0.0005)	ng/m ³	1.0 (Max.)	0.0005
10	Nickel (as Ni)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m ³	20.0 (Max.)	0.5
11	Arsenic (as As)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m ³	6.0 (Max.)	0.5
12	Lead (as Pb)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.0005)	µg/m ³	1.0 (Max.)	0.0005

BLQ= Below Limit of Quantification, LOQ= Limit of Quantification

*NAAQS- National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-se.-3(i)] 16.11.2009.

Remark: Sampling done by ISSPL Representative (Mr. Pokhar Nath Yogi).

****End of the Report****

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TEST REPORT

Report No.	ISSPL/EN/24-25/00278	Date	20/08/2024
1. Name & address of Customer	KEPCO Plant Service & Engineering Co. Ltd. Talwandi Sabo Power Ltd., 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab		
2. Reference No.	Your TRF Dated: 17/08/2024 (Reg.No. 98722)		
3. Material Identification with details	Ambient Air Quality Monitoring: Qty. 1 No.		
4. Date of Sampling	16/08/2024 - 17/08/2024		
5. Time of Sampling	09:30 am to 09:30 am		
6. Sampling Location	Station No.2 (CAAQMS)		
7. Sampling Protocol	IS:5182 (Pt-14) 2000		
8. Duration of Sampling (Minutes)	1440 Min.		
9. Test Started On	17/08/2024		
10. Test Completed On	20/08/2024		
11. Date of sample Testing	17/08/2024 To 20/08/2024		
12. Nature & Activity of the Unit	Human and Plant Site Activities		
13. Ambient Temperature (oC)	Min. 28°C, Max. 38°C		
14. Weather Condition during Monitoring	Clear Sky		
15. Instrument Code & Calibration Status	ISSPL/INS/C/120, ISSPL/INS/C/128, ISSPL/INS/C/201		

RESULTS

S.No.	Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit
I. Chemical Parameter:-						
1. Atmospheric Pollution						
1	Sulphur Dioxide (as SO ₂)	IS:5182 (Part 2)-2001, Reaff :2017	11.2	µg/m ³	80 (Max.)	4
2	Nitrogen Dioxide(as NO ₂)	IS:5182 (Part 6)-2006, Reaff :2017	27.9	µg/m ³	80 (Max.)	6

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TEST REPORT

Report No.		ISSPL/EN/24-25/00278			Date		20/05/2024	
S.No.	Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit		
3	Particulate Matter (as PM2.5)	IS:5182 (Part 24):2019	44.3	µg/m ³	60 (Max.)	1		
4	Particulate Matter (as PM10)	IS:5182 (Part 23)-2006, Reaff:2017	80.1	µg/m ³	100 (Max.)	2		
5	Ammonia (as Total ammonia-N)	IS:5182 (Part 25):2018	11.0	µg/m ³	400 (Max.)	0.1		
6	Ozone (as O3)	IS 5182 (P-9):1974, Reaff:2014	24.0	µg/m ³	180 (Max.)	1		
7	Carbon Monoxide (as CO)	IS 5182 (Part - 10):1999	0.72	mg/m ³	4 (Max.)	0.02		
8	Benzene	IS: 5182 (Part 11):2006 Reaff. 2017	BLQ(LOQ 1.0)	µg/m ³	5.0 (Max.)	1.0		
9	Benzo(a)pyrene	IS: 5182 (Part-12)-2004, Reaff:2014	BLQ(LOQ:0.0005)	ng/m ³	1.0 (Max.)	0.0005		
10	Nickel (as Ni)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m ³	20.0 (Max.)	0.5		
11	Arsenic (as As)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m ³	6.0 (Max.)	0.5		
12	Lead (as Pb)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.0005)	µg/m ³	1.0 (Max.)	0.0005		

BLQ= Below Limit of Quantification, LOQ= Limit of Quantification

*NAAQS- National Ambient Air Quality Standards: Schedule-VII, [Rule 3 (3B)], [Part-II-se.-3(i)] 16.11.2009.

Remark: Sampling done by ISSPL Representative (Mr. Pokhar Nath Yogi).

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TEST REPORT

Report No.	ISSPL/EN/24-25/00279	Date	20/08/2024
1. Name & address of Customer	KEPCO Plant Service & Engineering Co. Ltd. Talwandi Sabo Power Ltd., 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab		
2. Reference No.	Your TRF Dated: 17/08/2024 (Reg.No. 98721)		
3. Material Identification with details	Ambient Air Quality Monitoring: Qty. 1 No.		
4. Date of Sampling	16/05/2024 - 17/05/2024		
5. Time of Sampling	10:00 am to 10:00 am		
6. Sampling Location	Station No.4 (CAAQMS)		
7. Sampling Protocol	IS:5182 (Pt-14) 2000		
8. Duration of Sampling (Minutes)	1440 Min.		
9. Test Started On	17/08/2024		
10. Test Completed On	20/08/2024		
11. Date of sample Testing	14/07/2024 To 20/08/2024		
12. Nature & Activity of the Unit	Human and Plant Site Activities		
13. Ambient Temperature (oC)	Min. 28°C, Max. 38°C		
14. Weather Condition during Monitoring	Cloudy		
15. Instrument Code & Calibration Status	ISSPL/INS/C/172, ISSPL/INS/C/199, ISSPL/INS/C/185		

RESULTS

S.No.	Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit
I. Chemical Parameter:-						
1. Atmospheric Pollution						
1	Sulphur Dioxide (as SO ₂)	IS:5182 (Part 2)-2001, Reaff :2017	14.2	µg/m ³	80 (Max.)	4
2	Nitrogen Dioxide(as NO ₂)	IS:5182 (Part 6)-2006, Reaff :2017	23.4	µg/m ³	80 (Max.)	6

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TEST REPORT

Report No.		ISSPL/EN/24-25/00279			Date		20/08/2024	
S.No.	Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit		
3	Particulate Matter (as PM2.5)	IS:5182 (Part 24):2019	43.4	µg/m ³	60 (Max.)	1		
4	Particulate Matter (as PM10)	IS:5182 (Part 23)-2006, Reaff:2017	82.4	µg/m ³	100 (Max.)	2		
5	Ammonia (as Total ammonia-N)	IS:5182 (Part 25):2018	12.0	µg/m ³	400 (Max.)	0.1		
6	Ozone (as O3)	IS 5182 (P-9):1974, Reaff:2014	21.0	µg/m ³	180 (Max.)	1		
7	Carbon Monoxide (as CO)	IS 5182 (Part - 10):1999	0.72	mg/m ³	4 (Max.)	0.02		
8	Benzene	IS: 5182 (Part 11):2006 Reaff. 2017	BLQ(LOQ 1.0)	µg/m ³	5.0 (Max.)	1.0		
9	Benzo(a)pyrene	IS: 5182 (Part-12)-2004, Reaff:2014	BLQ(LOQ:0.0005)	ng/m ³	1.0 (Max.)	0.0005		
10	Nickel (as Ni)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m ³	20.0 (Max.)	0.5		
11	Arsenic (as As)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m ³	6.0 (Max.)	0.5		
12	Lead (as Pb)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.0005)	µg/m ³	1.0 (Max.)	0.0005		

BLQ= Below Limit of Quantification, LOQ= Limit of Quantification

*NAAQS- National Ambient Air Quality Standards, Schedule-VII, [Rule 3 (3B)], [Part-II-se.-3(i)] 16.11.2009.

Remark: Sampling done by ISSPL Representative (Mr. Pokhar Nath Yogi).

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TEST REPORT

Report No.	ISSPL/EN/24-25/00288	Date	20/08/2024
1. Name & address of Customer	KEPCO Plant Service & Engineering Co. Ltd. Talwandi Sabo Power Ltd., 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab		
2. Reference No.	Your TRF Dated: 17/08/2024 (Reg.No. 98712)		
3. Material Identification with details	Ambient Air Quality Monitoring: Qty. 1 No.		
4. Date of Sampling	12/08/2024 - 13/08/2024		
5. Time of Sampling	11:40 am to 11:40 am		
6. Sampling Location	Chehlanwali Village		
7. Sampling Protocol	IS:5182 (Pt-14) 2000		
8. Duration of Sampling (Minutes)	1440 Min.		
9. Test Started On	17/08/2024		
10. Test Completed On	20/08/2024		
11. Date of sample Testing	17/08/2024 To 20/08/2024		
12. Nature & Activity of the Unit	Human and Plant Site Activities		
13. Ambient Temperature (oC)	Min. 27°C, Max. 34°C		
14. Weather Condition during Monitoring	Cloudy		
15. Instrument Code & Calibration Status	ISSPL/INS/C/215, ISSPL/INS/C/198, ISSPL/INS/C/217		

RESULTS

S.No.	Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit
I. Chemical Parameter:-						
1. Atmospheric Pollution						
1	Sulphur Dioxide (as SO ₂)	IS:5182 (Part 2)-2001, Reaff :2017	11.8	µg/m ³	80 (Max.)	4
2	Nitrogen Dioxide(as NO ₂)	IS:5182 (Part 6)-2006, Reaff :2017	22.2	µg/m ³	80 (Max.)	6

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TEST REPORT

Report No.		ISSPL/EN/24-25/00288			Date		20/08/2024	
S.No.	Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit		
3	Particulate Matter (as PM2.5)	IS:5182 (Part 24):2019	46.0	µg/m ³	60 (Max.)	1		
4	Particulate Matter (as PM10)	IS:5182 (Part 23)-2006, Reaff:2017	85.0	µg/m ³	100 (Max.)	2		
5	Ammonia (as Total ammonia-N)	IS:5182 (Part 25):2018	14.0	µg/m ³	400 (Max.)	0.1		
6	Ozone (as O3)	IS 5182 (P-9):1974, Reaff:2014	24.0	µg/m ³	180 (Max.)	1		
7	Carbon Monoxide (as CO)	IS 5182 (Part - 10):1999	0.78	mg/m ³	4 (Max.)	0.02		
8	Benzene	IS: 5182 (Part 11):2006 Reaff. 2017	BLQ(LOQ 1.0)	µg/m ³	5.0 (Max.)	1.0		
9	Benzo(a)pyrene	IS: 5182 (Part-12)-2004, Reaff:2014	BLQ(LOQ:0.0005)	ng/m ³	1.0 (Max.)	0.0005		
10	Nickel (as Ni)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m ³	20.0 (Max.)	0.5		
11	Arsenic (as As)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m ³	6.0 (Max.)	0.5		
12	Lead (as Pb)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.0005)	µg/m ³	1.0 (Max.)	0.0005		

BLQ= Below Limit of Quantification, LOQ= Limit of Quantification

*NAAQS- National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-se.-3(i)] 16.11.2009.

Remark: Sampling done by ISSPL Representative (Mr. Pokhar Nath Yogi).

End of the Report