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Testing Laboratory





CEG Tower, 1st& 2 nd 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. IS	SPL/EN/24-25/00260/A		Date	20/08/2024		
1.	Name & address of Customer	KEPCO Plant Service & Engi Talwandi Sabo Power Ltd., 3X Power Plant, Banawala, Mansa	660MW Thermal		***		
2.	Reference No.	Your TRF Dated: 17/08/2024 (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 Qty. 1 No.					
4.	Sample code	98740					
5.	Date of sampling	13/08/2024	13/08/2024				
6.	Date of Sample testing	17/08/2024 To 20/08/2024	17/08/2024 To 20/08/2024				
7.	Sampling duration (in minutes)	28 Min.	28 Min.				
8.	Sampling Location	Boiler Stack, Third Unit - (Unit	Boiler Stack, Third Unit - (Unit -1) (660 MW)				
9.	Sampling Protocol	IS:11255 (Pt-1) 1985 (RA 2014	4)				
10.	Type of stack	MS Circular					
11.	Stack attached to	7-1					
12.	Stack Diameter (in meters)	7.2					
13.	Stack height (in meters)	275	275				
14.	Type and quantity of fuel used	Coal	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			31		

RESULTS

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

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TEST REPORT

Report No.		ISSPL/EN/24-25/00260/A	ISSPL/EN/24-25/00260/A		20/08/2024
S.No.	Test Parameters	Test Method	Results	Units	Detection Limit
		2019			
2	Sulphur dioxide (SO2)	USEPA 6C: 1996/By Flue Gas Analyzer	1140	mg/Nm3	0.3
3	Oxides of Nitrogen (NOX)	USEPA 7E: 1990/By Flue Gas Analyzer	196.2	mg/Nm3	0.2
4	Carbon Monoxide (CO)	USEPA 10: 1996/By Flue Gas Analyzer	4.60	mg/Nm3	0.1
5	Carbon Dioxide as CO2	USEPA 3A:1989	10.3	%	0.1
6	Oxyen as O2	USEPA 3A:1989	7.2	%	0.1
7	Mercury (Hg)	USEPA 29:1996/101A:1991	BLQ(LOQ: 0.001)	mg/Nm3	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. IS	SPL/EN/24-25/00260/B	1	Date	20/08/2024	
1.	Name & address of Customer	KEPCO Plant Service & Eng Talwandi Sabo Power Ltd., 33 Power Plant, Banawala, Mans	K660MW Thermal			
2.	Reference No.	Your TRF Dated: 17/08/2024	(Reg. No. 98740)			
3.	Material Identification with details	Boiler Stack: Date and Time of Qty. 1 No.	of Sampling: 13/08/20	024 (11:	00 am to 11:28 am),	
4.	Sample code	98740				
5.	Date of sampling	13/08/2024	13/08/2024			
6.	Date of Sample testing	17/08/2024 To 20/08/2024	17/08/2024 To 20/08/2024			
7.	Sampling duration (in minutes)	28 Min.	28 Min.			
8.	Sampling Location	Boiler Stack, Third Unit - (Un	it -1) (660 MW)			
9.	Sampling Protocol	IS:11255 (Pt-1) 1985 (RA 201	14)			
10.	Type of stack	MS Circular			2	
11.	Stack attached to	140				
12.	Stack Diameter (in meters)	7.2				
13.	Stack height (in meters)	275	275			
14.	Type and quantity of fuel used	Coal				
15.	Instrument Code & Calibration	Status ISSPL/İNS/C/133	Ti .			
16.	Control Measures if any	(A-1)				
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. Chemi	ical Testing:-	-			
1. A	Atmospheric Pollution:-				
1 Vel	locity 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/EI	N/24-25/00261/A		Date	20/08/2024		
Name & address of Cust	omer	KEPCO Plant Service & En Talwandi Sabo Power Ltd., 3 Power Plant, Banawala, Mar	3X660MW Thermal				
2. Reference No.		Your TRF Dated: 17/08/2024(Reg. No. 98739)					
3. Material Identification widetails	th	Boiler Stack: Date and Time of Sampling: 13/08/2024 (12:15 pm to 12:42 , Qty. 1 No.					
1. Sample code		98739					
5. Date of sampling		13/08/2024					
Date of Sample testing		17/08/2024 To 18/05/2024					
7. Sampling duration (in r	ninutes)	27 Min.					
8. Sampling Location		Boile Stack – First Unit – (Ur	nit-2) (660 MW)		ia.		
Sampling Protocol		IS:11255 (Pt-1) 1985 (RA 20	014)				
10. Type of stack		MS Circular					
11. Stack attached to		ii .					
12. Stack Diameter (in met	ers)	7.2					
13. Stack height (in meters)	275					
14. Type and quantity of fu	Type and quantity of fuel used Coal						
15. Instrument Code & Cali	bration Status	ISSPL/INS/C/134					
16. Control Measures if an	У	-			411		
17. Ambient Temperature (oC)	39°C					
18. Flue Gas Temperature	(oC)	132°C					

RESULTS

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

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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 (SO2)	USEPA 6C: 1996/By Flue Gas Analyzer	1071	mg/Nm3	0.3
3	Oxides of Nitrogen (NOX)	USEPA 7E: 1990/By Flue Gas Analyzer	189.2	mg/Nm3	0.2
4	Carbon Monoxide (CO)	USEPA 10: 1996/By Flue Gas Analyzer	4.3	mg/Nm3	0.1
5	Carbon Dioxide (CO2)	USEPA 3A:1989	10.6	%	0.1
6	Oxyen as O2	USEPA 3A:1989	7.0	% .	0.1
7	Mercury (Hg)	USEPA 29:1996/101A:1991	BLQ(LOQ 0.001)	mg/Nm3	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.	SPL/EN/24-25/00261/B	Date	20/08/2024		
1.	Name & address of Customer	KEPCO Plant Service & Engineer Talwandi Sabo Power Ltd., 3X660M Power Plant, Banawala, Mansa Dis	IW Thermal	٥		
2.	Reference No.	Your TRF Dated: 17/08/2024(Reg.	No. 98739)	n F		
3.	Material Identification with details	Boiler Stack: Date and Time of San , Qty. 1 No.	npling: 13/08/2024 (12	2:15 pm to 12:42 pm),		
4.	Sample code	98739				
5.	Date of sampling	13/08/2024				
6.	Date of Sample testing	17/08/2024 To 18/05/2024	17/08/2024 To 18/05/2024			
7.	Sampling duration (in minutes)	27 Min.	27 Min.			
8.	Sampling Location	Boile Stack – First Unit– (Unit-2) (66	60 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	W.			
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 Ve	locity of Gas	CPCB Emission	26.2	m/s	Not Specified
- 1					

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TEST REPORT

	Report No.	ISSPL/EN/24-25/00261/B		Dat	e 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).

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TEST REPORT

		I MO I II WILL						
	Report No.	SPL/EN/24-25/00262/A	Date	20/08/2024				
1	Name & address of Customer	KEPCO Plant Service & Engineer Talwandi Sabo Power Ltd., 3X660N Power Plant, Banawala, Mansa Dis	1W Thermal					
2.	Reference No.	Your TRF Dated: 16/05/2024(Reg.	Your TRF Dated: 16/05/2024(Reg. No. 98738)					
3.	Material Identification with details	Boiler Stack: Date and Time of Sam Qty. 1 No.	npling: 13/08/2024 (12:	01 pm to 12:20 pm),				
4.	Sample code	98738		* -				
5.	Date of sampling	13/08/2024	13/08/2024					
6.	Date of Sample testing	17/08/2024 To 20/08/2024	17/08/2024 To 20/08/2024					
7	Sampling duration (in minutes)	19 Min.	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	140					
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		2				

RESULTS

S.No.	Test Parameters	Test Method	Results	Units	Detection Limit
31. C	hemical 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 (SO2)	USEPA 6C: 1996/By Flue Gas Analyzer	1165	mg/Nm3	0.3
3	Oxides of Nitrogen (NOX)	USEPA 7E: 1990/By Flue Gas Analyzer	174.5	mg/Nm3	0.2
4	Carbon Monoxide (CO)	USEPA 10: 1996/By Flue Gas Analyzer	3.48	mg/Nm3	0.1
5	CO2	USEPA 3A:1989	10.7	%	0.1
6	02	USEPA 3A:1989	7.2	%	0.1
7	Mercury (Hg)	USEPA 29:1996/101A:1991	BLQ(LOQ 0.001)	mg/Nm3	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. IS	SPL/EN/24-25/00262/B	1	Date	20/08/2024		
1.	Name & address of Customer	KEPCO Plant Service & Eng Talwandi Sabo Power Ltd., 3> Power Plant, Banawala, Mans	K660MW Thermal				
2.	Reference No.	Your TRF Dated: 16/05/2024((Reg. No. 98738)		(4)		
3.	Material Identification with details	Boiler Stack: Date and Time of Qty. 1 No.	of Sampling: 13/08/20)24 (12:	01 pm to 12:20 pm),		
4.	Sample code	98738					
5.	Date of sampling	13/08/2024					
6.	Date of Sample testing	17/08/2024 To 20/08/2024	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)		2		
9.	Sampling Protocol	IS:11255 (Pt-1) 1985 (RA 201	4)				
10.	Type of stack	MS Circular			*		
11.	Stack attached to	- "	W.				
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
31. CI	nemical 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).

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TEST REPORT

	Report No.	SPL/EN/24-25/00276	Date	20/08/2024				
1.	Name & address of Customer	Talwandi Sabo Power Ltd., 3X6	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 (F	Reg.No. 98724)					
3.	Material Identification with details	Ambient Air Quality Monitorii	ng: Qty. 1 No.					
4.	Date of Sampling	14/08/2024 - 15/08/2024	14/08/2024 - 15/08/2024					
5.	Time of Sampling	08:50 am to 08:50 am	08:50 am to 08:50 am					
6.	Sampling Location	Station No.1 (CAAQMS)	Station No.1 (CAAQMS)					
7.	Sampling Protocol	IS:5182 (Pt-14) 2000	IS:5182 (Pt-14) 2000					
8.	Duration of Sampling (Minutes)	1440 Min.						
9.	Test Started On	17/08/2024	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	3	*				
13.	Ambient Temperature (oC)	Min. 28°C, Max. 38°C						
14.	Weather Condition during Moni	toring Cloudy						
15.	Instrument Code & Calibration	Status ISSPL/INS/C/121, ISSPL/INS/C	C/129, ISSPL/INS/C/197					

RESULTS

	.,									
S.No.	Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit				
I.Che	mical Parameter:-		2							
1. Atr	nospheric Pollution									
1	Sulphur Dioxide (as SO2)	IS:5182 (Part 2)-2001, Reaff :2017	13.0	μg/m³	80 (Max.)	4				
2	Nitrogen Dioxide(as NO2)	IS:5182 (Part 6)-2006, Reaff :2017	24.8	μg/m³	80 (Max.)	6				

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TEST REPORT

Repor	t No.	ISSPL/EN/24-25/00276	3	Dat	е	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/m³	60 (Max.)	1
4	Particulate Matter (as PM10)	IS:5182 (Part 23)- 2006, Reaff:2017	82.6	µg/m³	100 (Max.)	2
5	Ammonia (as Total ammonia-N)	IS:5182 (Part 25) :2018	13.0	µg/m³	400 (Max.)	0.1
6	Ozone (as O3)	IS 5182 (P-9):1974, Reaff:2014	27.0	μg/m³	180 (Max.)	1
7	Carbon Monoxide (as CO)	IS 5182 (Part - 10):1999	0.66	mg/m³	4 (Max.)	0.02
8	Benzene	IS: 5182 (Part 11) :2006 Reaff. 2017	BLQ(LOQ 1.0)	µg/m³	5.0 (Max.)	1.0
9	Benzo(a)pyrene	IS: 5182 (Part-12)- 2004, Reaff:2014	BLQ(LOQ:0.0005)	ng/m³	1.0 (Max.)	0.0005
10	Nickel (as Ni)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m³	20.0 (Max.)	0.5
11	Arsenic (as As)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m³	6.0 (Max.)	0.5
12	Lead (as Pb)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.0005)	μg/m³	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.	SSPL/EN/24-25/00277	Date	20/08/2024				
1.	Name & address of Customer	KEPCO Plant Service & Engi Talwandi Sabo Power Ltd., 3X6 Power Plant, Banawala, Mansa	660MW Thermal					
2.	Reference No.	Your TRF Dated: 17/08/2024 (Your TRF Dated: 17/08/2024 (Reg.No. 98723)					
3.	Material Identification with Ambient Air Quality Monitoring: Qty. 1 No. details							
4.	Date of Sampling	14/05/2024 - 15/05/2024	14/05/2024 - 15/05/2024					
5.	Time of Sampling	09:30 am to 09:30 am	09:30 am to 09:30 am					
6.	Sampling Location	Station No.3 (CAAQMS)	Station No.3 (CAAQMS)					
7.	Sampling Protocol	IS:5182 (Pt-14) 2000	IS:5182 (Pt-14) 2000					
8.	Duration of Sampling (Minutes) 1440 Min.	1440 Min.					
9.	Test Started On	17/08/2024	24					
10.	Test Completed On	20/08/2024		2				
11.	Date of sample Testing	17/08/2024 To 20/08/2024		<u> </u>				
12.	Nature & Activity of the Unit	Human and Plant Site Activitie	Human and Plant Site Activities					
13.	Ambient Temperature (oC)	Min. 28°C, Max. 38°C	Min. 28°C, Max. 38°C					
14.	Weather Condition during Mon	itoring Cloudy		75.7				
15.	Instrument Code & Calibration	Status ISSPL/INS/C/192, ISSPL/INS/C	C/209, ISSPL/INS/C/127					

RESULTS

		KLJUL	.10			
S.No.	Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit
.Chei	mical Parameter:-					
1. Atn	nospheric Pollution					
1	Sulphur Dioxide (as SO2)	IS:5182 (Part 2)-2001, Reaff :2017	12.7	μg/m³	80 (Max.)	4
2	Nitrogen Dioxide(as NO2)	IS:5182 (Part 6)-2006, Reaff :2017	26.4	µg/m³	80 (Max.)	6

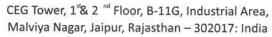
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TEST REPORT

Repor	t No.	ISSPL/EN/24-25/00277		Date	е	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/m³	60 (Max.)	1
4	Particulate Matter (as PM10)	IS:5182 (Part 23)- 2006, Reaff:2017	79.8	µg/m³	100 (Max.)	2
	Ammonia (as Total ammonia-N)	IS:5182 (Part 25) :2018	16.0	µg/m³	400 (Max.)	0.1
6	Ozone (as O3)	IS 5182 (P-9):1974, Reaff:2014	28.0	μg/m³	180 (Max.)	1
7	Carbon Monoxide (as CO)	IS 5182 (Part - 10):1999	0.70	mg/m³	4 (Max.)	0.02
8	Benzene	IS: 5182 (Part 11) :2006 Reaff. 2017	BLQ(LOQ 1.0)	µg/m³	5.0 (Max.)	1.0
9	Benzo(a)pyrene	IS: 5182 (Part-12)- 2004, Reaff:2014	BLQ(LOQ:0.0005)	ng/m³	1.0 (Max.)	0.0005
10	Nickel (as Ni)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m³	20.0 (Max.)	0.5
11	Arsenic (as As)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m³	6.0 (Max.)	0.5
12	Lead (as Pb)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.0005)	μg/m³	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.	SPL/EN/24-25/00278	Date	20/08/2024				
1.	Name & address of Customer	Talwandi Sabo Power Ltd., 3X	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 Monitor	ing: 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.		h.				
9.	Test Started On	17/08/2024	9					
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 Activitie	es					
13.	Ambient Temperature (oC)	Min. 28°C, Max. 38°C						
14.	Weather Condition during Mon	itoring Clear Sky						
15.	Instrument Code & Calibration	Status ISSPL/INS/C/120, ISSPL/INS/	C/128, ISSPL/INS/C/201					

RESULTS

	KLOUL	10			
Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit
mical Parameter:-					
mospheric Pollution					
Sulphur Dioxide (as SO2)	IS:5182 (Part 2)-2001, Reaff :2017	11.2	μg/m³	80 (Max.)	4
Nitrogen Dioxide(as NO2)	IS:5182 (Part 6)-2006, Reaff :2017	27.9	μg/m³	80 (Max.)	6
	mical Parameter:- nospheric Pollution Sulphur Dioxide (as SO2)	Name of Test Method of Test mical Parameter:- nospheric Pollution Sulphur Dioxide (as SO2) IS:5182 (Part 2)-2001, Reaff :2017 Nitrogen Dioxide(as NO2) IS:5182 (Part 6)-2006, Reaff	Name of Test Method of Test Results mical Parameter:- nospheric Pollution Sulphur Dioxide (as SO2) IS:5182 (Part 2)-2001, Reaff :2017 Nitrogen Dioxide(as NO2) IS:5182 (Part 6)-2006, Reaff 27.9	Name of Test Method of Test Results Unit mical Parameter:- nospheric Pollution Sulphur Dioxide (as SO2) IS:5182 (Part 2)-2001, Reaff :2017 11.2 μg/m³ Nitrogen Dioxide(as NO2) IS:5182 (Part 6)-2006, Reaff 27.9 μg/m³	NAAQS* mical Parameter:- nospheric Pollution Sulphur Dioxide (as SO2) IS:5182 (Part 2)-2001, Reaff 11.2 μg/m³ 80 (Max.) Nitrogen Dioxide(as NO2) IS:5182 (Part 6)-2006, Reaff 27.9 μg/m³ 80 (Max.)

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TEST REPORT

Repor	t No.	ISSPL/EN/24-25/00278	3	Dat	e 20/0	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/m³	60 (Max.)	1
4	Particulate Matter (as PM10)	IS:5182 (Part 23)- 2006, Reaff:2017	80.1	µg/m³	100 (Max.)	2
5	Ammonia (as Total ammonia-N)	IS:5182 (Part 25) :2018	11.0	µg/m³	400 (Max.)	0.1
6	Ozone (as O3)	IS 5182 (P-9):1974, Reaff:2014	24.0	µg/m³	180 (Max.)	1
7	Carbon Monoxide (as CO)	IS 5182 (Part - 10):1999	0.72	mg/m³	4 (Max.)	0.02
8	Benzene	IS: 5182 (Part 11) :2006 Reaff. 2017	BLQ(LOQ 1.0)	µg/m³	5.0 (Max.)	1.0
9	Benzo(a)pyrene	IS: 5182 (Part-12)- 2004, Reaff:2014	BLQ(LOQ:0.0005)	ng/m³	1.0 (Max.)	0.0005
10	Nickel (as Ni)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m³	20.0 (Max.)	0.5 .
11	Arsenic (as As)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m³	6.0 (Max.)	0.5
12	Lead (as Pb)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.0005)	μg/m³	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.	SSPL/EN/24-25/00279	Date	20/08/2024				
1.	Name & address of Customer	Talwandi Sabo Power Ltd., 3X660	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	J.No. 98721)	71				
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	Sampling Location Station No.4 (CAAQMS)						
7.	Sampling Protocol	IS:5182 (Pt-14) 2000						
3.	Duration of Sampling (Minutes)							
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		til				
13.	Ambient Temperature (oC)	Min. 28°C, Max. 38°C						
14.	Weather Condition during Moni	oring Cloudy						
15.	Instrument Code & Calibration S	tatus ISSPL/INS/C/172, ISSPL/INS/C/19	9, ISSPL/INS/C/185					
				X.				

RESULTS

S.No.		Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit
.Chei	nical Parameter:-				MAAQS	
I. Atn	nospheric Pollution		19			
1	Sulphur Dioxide (as SO2)	IS:5182 (Part 2)-2001, Reaff :2017	14.2	μg/m³	80 (Max.)	4
2	Nitrogen Dioxide(as NO2)	IS:5182 (Part 6)-2006, Reaff :2017	23.4	μg/m³	80 (Max.)	6

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Reviewed By

Jaipur Parmeshwar Lal Authorised Signatory



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TEST REPORT

Repo	t No.	ISSPL/EN/24-25/00279	9	Dat	e 20	/08/2024
S.No.	Name of Test	Method of Test	Results	Unit	Limit as per	Detection Limit
3	Particulate Matter (as PM2.5)	IS:5182 (Part 24):2019	43.4	μg/m³	60 (Max.)	1
4	Particulate Matter (as PM10)	IS:5182 (Part 23)- 2006, Reaff:2017	82.4	µg/m³	100 (Max.)	2
5	Ammonia (as Total ammonia-N)	IS:5182 (Part 25) :2018	12.0	µg/m³	400 (Max)	0.1
6	Ozone (as O3)	IS 5182 (P-9):1974, Reaff:2014	21.0	μg/m³	180 (Max.)	1 .
7	Carbon Monoxide (as CO)	IS 5182 (Part - 10):1999	0.72	mg/m³	4 (Max.)	0.02
8	Benzene	IS: 5182 (Part 11) :2006 Reaff. 2017	BLQ(LOQ 1.0)	µg/m³	5.0 (Max.)	1.0
9	Benzo(a)pyrene	IS: 5182 (Part-12)- 2004, Reaff:2014	BLQ(LOQ:0.0005)	ng/m³	1.0 (Max.)	0.0005
10	Nickel (as Ni)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m³	20.0 (Max.)	0.5
11	Arsenic (as As)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m³	6.0 (Max.)	0.5
12	Lead (as Pb)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.0005)	µg/m³	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.	SSPL/EN/24-25/00288	Date	20/08/2024				
1.	Name & address of Customer	Talwandi Sabo Power Ltd., 3X66	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 (Re	eg.No. 98712)					
3.	Material Identification with details	Ambient Air Quality Monitoring	g: Qty. 1 No.					
4.	Date of Sampling	12/08/2024 - 13/08/2024	i i					
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		60				
13.	Ambient Temperature (oC)	Min 27°C, Max. 34°C						
14.	Weather Condition during Mon	itoring Cloudy						
15.	Instrument Code & Calibration	Status ISSPL/INS/C/215, ISSPL/INS/C/	198, ISSPL/INS/C/217	•				

RESULTS

		INLOUL	10			
S.No.	Name of Test	Method of Test	Results	Unit	Limit as per NAAQS*	Detection Limit
I.Che	mical Parameter:-					
1. Atn	mospheric Pollution					
1	Sulphur Dioxide (as SO2)	IS:5182 (Part 2)-2001, Reaff :2017	11.8	μg/m³	80 (Max.)	4
2	Nitrogen Dioxide(as NO2)	IS:5182 (Part 6)-2006, Reaff :2017	22.2	μg/m³	80 (Max.)	6

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TEST REPORT

Repor	t No.	ISSPL/EN/24-25/00288	3	Dat	е	20/08/2024
S.No.	Name of Test	Method of Test	Results	Unit	Limit as pe	Pr Detection Limit
3	Particulate Matter (as PM2.5)	IS:5182 (Part 24):2019	46.0	µg/m³	60 (Max.)	1
4	Particulate Matter (as PM10)	IS:5182 (Part 23)- 2006, Reaff:2017	85.0	μg/m³	100 (Max.)	2
5	Ammonia (as Total ammonia-N)	IS:5182 (Part 25) :2018	14.0	μg/m³	400 (Max.)	0.1
6	Ozone (as O3)	IS 5182 (P-9):1974, Reaff:2014	24.0	μg/m³	180 (Max.)	1
7	Carbon Monoxide (as CO)	IS 5182 (Part - 10):1999	0.78	mg/m³	4 (Max.)	0.02
8	Benzene	IS: 5182 (Part 11) :2006 Reaff. 2017	BLQ(LOQ 1.0)	μg/m³	5.0 (Max.)	1.0
9	Benzo(a)pyrene	IS: 5182 (Part-12)- 2004, Reaff:2014	BLQ(LOQ:0.0005)	ng/m³	1.0 (Max.)	0.0005
10	Nickel (as Ni)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m³	20.0 (Max.)	0.5
11	Arsenic (as As)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.5)	ng/m³	6.0 (Max.)	0.5
12	Lead (as Pb)	USEPA Method IO 3.5 1999	BLQ(LOQ:0.0005)	μg/m³	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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