



SYSTEMS AND SOLUTIONS PRIVATE LIMITED

(Promoted by Indian Register of Shipping)

Testing Laboratory

CEG Tower, 15 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

ULR: TC584324100000217F

| 1 | Report No. ISSPI | /EN/24-25/10113 | Date | 26/06/2024 | | | |
|-------|--|--|---|------------|--|--|--|
| | Name & address of Customer | Talwandi Sabo Power Ltd. 3X660MW Thermal Power Plan Banawala, Mansa District Punja | | | | | |
| 2. 1 | Reference No. | PO - WA24Y-00002, Date: 10/0 88887) | PO - WA24Y-00002, Date: 10/05/2024 & TRF Dated: 17/06/2024 (Reg. 88887) | | | | |
| | Material Identification with details | Ambient Air Quality Monitoring: am) to 16/06/2024 (10:38 am), Qty. 1 No. | Ambient Air Quality Monitoring: Date and Time of Sampling: 15/06/2024 (10:38 am) to 16/06/2024 (10:38 am), Location: Station No.01 (CAAQMS) Core Zone, Qty. 1 No. | | | | |
| 1. | Date of Sampling | 15/06/2024 - 16/06/2024 | | | | | |
| 5. | Time of Sampling | 10:38 am to 10:38 am | 10:38 am to 10:38 am | | | | |
| 6. | Sampling Location | Station No.01 (CAAQMS) Core | Zone | | | | |
| 7. | Sampling Protocol | IS:5182 (Pt-14) 2000 | | | | | |
| 8. | Duration of Sampling (Minutes) | 1440 Min. | | | | | |
| 9. | Test Started On | 19/06/2024 | | | | | |
| 10. | Test Completed On | 21/06/2024 | | | | | |
| 11. | Date of sample Testing | 19/06/2024 To 21/06/2024 | | | | | |
| 12. | Nature & Activity of the Unit | Human and Plant Site Activitie | s | | | | |
| 14- | ANNACO STATE OF THE STATE OF TH | Min. 33°C, Max. 44°C | | | | | |
| 13. | Willipient Lembergrane () | | | | | | |
| Massi | | ring Clear Sky atus ISSPL/INS/C/215, ISSPL/INS/ | | | | | |

RESULTS

| S.No. | Name of Test | Method of Test | Results | Unit | Limit as per NAAQS* |
|-------|---------------------------|------------------------------------|---------|-------|---------------------|
| I.Che | mical Parameter:- | | | | |
| | 1. Atmospheric Pollution | | | T | 80 (Max.) |
| 1 | Sulphur Dioxide (as SO2) | IS:5182 (Part 2)-2001, Reaff :2017 | 12.7 | µg/m³ | ou (Iviax.) |
| 2 | Nitrogen Dioxide(as NO2) | IS:5182 (Part 6)-2006, Reaff :2017 | 24.2 | µg/m³ | 80 (Max.) |

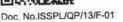
Page No. 1/2

26/06/2024

Reviewed By

Parmeshwar Lal Assist. Manager

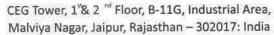




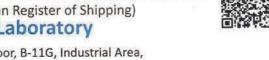


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Testing Laboratory



Tel: 0141-4805672 | Email - lab@irclass.org | Website : www.isspllab.com







TEST REPORT

ULR: TC584324100000217F

| | Report No. | ISSPL/EN/24-25/10113 | | Dat | te 26/06/2024 | |
|-------|--|-------------------------|---------------------|-------|--------------------|--|
| S.No. | ore training and the same of t | Method of Test Result | | Unit | Limit as per NAAQS | |
| - | Particulate Matter (as PM2.5) | IS:5182 (Part 24):2019 | 42.3 | µg/m³ | 60 (Max.) | |
| | Particulate Matter (as PM10) | | 81.8 | µg/m³ | 100 (Max.) | |
| 5 | Carbon Monoxide (as CO) | IS 5182 (Part -10):1999 | 0.71 | mg/m³ | 4 (Max.) | |
| | Lead (as Pb) | | BLQ(LOQ:0.000 5) | µg/m³ | 1.0 (Max.) | |

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. Dinesh Jangid).

End of the Report

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26/06/2024

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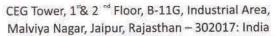
26/06/2024 Parmeshwar Lal Assist. Manager **Authorised Signatory**





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TEST REPORT

ULR: TC584324100000219F

| 200 | Report No. ISSI | PL/EN/24-25/10115 | Date | 26/06/2024 | | | |
|-----|--|---|---|------------|--|--|--|
| . 1 | Name & address of Customer | Talwandi Sabo Power Ltd. 3X660MW Thermal Power Plar Banawala, Mansa District Punja | | | | | |
| 2. | Reference No. | PO - WA24Y-00002, Date: 10/6 88885) | PO - WA24Y-00002, Date: 10/05/2024 & TRF Dated: 17/06/2024 (Reg. No. 88885) | | | | |
| | Material Identification with details | Ambient Air Quality Monitoring am) to 14/06/2024 (10:38 am), Qty. 1 No. | Ambient Air Quality Monitoring: Date and Time of Sampling: 13/06/2024 (10:38 am) to 14/06/2024 (10:38 am), Location: Station No.02 (CAAQMS) Core Zone, Qty. 1 No. | | | | |
| 1. | Date of Sampling | 13/06/2024 - 14/06/2024 | | | | | |
| 5. | Time of Sampling | 10:38 am to 10:38 am | 10:38 am to 10:38 am | | | | |
| 6. | Sampling Location | Station No.02 (CAAQMS) Core | e Zone | | | | |
| 7. | Sampling Protocol | IS:5182 (Pt-14) 2000 | | | | | |
| 8. | Duration of Sampling (Minutes) | 1440 Min. | | | | | |
| 9. | Test Started On | 19/06/2024 | | | | | |
| 10. | AND SANDERS OF THE SA | 21/06/2024 | | | | | |
| 11. | The second and the second are second as the second | 19/06/2024 To 21/06/2024 | | | | | |
| 12. | | Human and Plant Site Activitie | es | | | | |
| 13. | Ambient Temperature (oC) | Min. 29°C, Max. 43°C | | | | | |
| 14. | Weather Condition during Monit | | 0 | | | | |
| | Instrument Code & Calibration S | status ISSPL/INS/C/122, ISSPL/INS | IC/128 ISSPI /INS/C/219 | | | | |

RESULTS

| S.No. | Name of Test | Method of Test | Results | Unit | Limit as per NAAQS* |
|-------|---------------------------|------------------------------------|---------|-------|---------------------|
| I.Che | emical Parameter:- | | | | |
| | 1. Atmospheric Pollution | | 102.025 | 1 4-3 | 80 (Max.) |
| 1 | Sulphur Dioxide (as SO2) | IS:5182 (Part 2)-2001, Reaff :2017 | 15.2 | µg/m³ | ou (Max.) |
| 2 | Nitrogen Dioxide(as NO2) | IS:5182 (Part 6)-2006, Reaff :2017 | 26.4 | µg/m³ | 80 (Max.) |

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26/06/2024

Reviewed By

Jaipur 26/06/2024
Parmeshwar Lal
Assist. Manager
Authorised Signatory





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Tel: 0141-4805672 | Email - lab@irclass.org | Website : www.isspllab.com

TEST REPORT

ULR: TC584324100000219F

| | Report No. | | Da | te | te 26/06/2024 | | |
|-------|--------------------------------|--|---------------------|--------|---------------|--------------------|--|
| S.No. | Keport No. | ISSPL/EN/24-25/10115 | | s Unit | | Limit as per NAAQS | |
| | Particulate Matter (as PM2.5) | IS:5182 (Part 24):2019 | 42.1 | μg/m³ | | 60 (Max.) | |
| | Particulate Matter (as PM10) | The second secon | 88.2 | μg/m³ | | 100 (Max.) | |
| 5 | Carbon Monoxide (as CO) | IS 5182 (Part -10):1999 | 0.71 | mg/m³ | | 4 (Max.) | |
| 6 | Lead (as Pb) | USEPA Method IO 3.5 1999 | BLQ(LOQ:0.000 5) | µg/m³ | | 1.0 (Max.) | |

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. Dinesh Jangid).

End of the Report

Page No. 2/2

26/06/2024

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26/06/2024 Parmeshwar Lal Assist, Manager **Authorised Signatory**

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TEST REPORT

ULR: TC584324100000216F

| | Report No. ISS | PL/EN/24-25/10112 | Date | 26/06/2024 | | | |
|-----|--|--|---|------------|--|--|--|
| 1. | Name & address of Customer | Talwandi Sabo Power Ltd. 3X660MW Thermal Power Planawala, Mansa District Pur | | | | | |
| 2. | Reference No. | PO - WA24Y-00002, Date: 10 88888) | PO - WA24Y-00002, Date: 10/05/2024 & TRF Dated: 17/06/2024 (Reg. No. 88888) | | | | |
| ~. | Material Identification with details | Ambient Air Quality Monitorin am) to 16/06/2024 (11:25 am Qty. 1 No. | t Air Quality Monitoring: Date and Time of Sampling: 15/06/2024 (11:25 16/06/2024 (11:25 am), Location: Station No.03 (CAAQMS) Core Zone, No. | | | | |
| 4. | Date of Sampling | 15/06/2024 - 16/06/2024 | 15/06/2024 - 16/06/2024 | | | | |
| 5. | Time of Sampling | 11:25 am to 11:25 am | 11:25 am to 11:25 am | | | | |
| 6. | Sampling Location | Station No.03 (CAAQMS) Co | re Zone | | | | |
| 7. | Sampling Protocol | IS:5182 (Pt-14) 2000 | | | | | |
| 8. | Duration of Sampling (Minutes) | 1440 Min. | | | | | |
| 9. | Test Started On | 19/06/2024 | | | | | |
| 10. | A STATE OF THE STA | 21/06/2024 | | | | | |
| 11. | | 19/06/2024 To 21/06/2024 | | | | | |
| 12. | | Human and Plant Site Activi | ties | | | | |
| 13. | Ambient Temperature (oC) | Min. 33°C, Max. 44°C | | | | | |
| 14. | Weather Condition during Moni | toring Clear Sky | | | | | |
| 15. | Instrument Code & Calibration | Status ISSPI /INS/C/122 ISSPL/IN | S/C/128, ISSPL/INS/C/219 | | | | |

RESULTS

| S.No. | Name of Test | Method of Test | Results | Unit | Limit as per NAAQS* |
|-------|---------------------------|------------------------------------|---------|-------------|---------------------|
| I.Che | mical Parameter:- | | | | |
| | 1. Atmospheric Pollution | | | T III III T | 20.01 |
| 1 | Sulphur Dioxide (as SO2) | IS:5182 (Part 2)-2001, Reaff :2017 | 12.0 | μg/m³ | 80 (Max.) |
| 2 | Nitrogen Dioxide(as NO2) | IS:5182 (Part 6)-2006, Reaff :2017 | 24.4 | μg/m³ | nd Solution |

Page No. 1/2

26/06/2024

Reviewed By

Parmeshwar Lal Assist, Manager

Authorised Signatory

Jaipur





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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

ULR: TC584324100000216F

| Report No. ISSPL/EN/24-25/10112 | | | 8 | Da | te | 26/06/2024 | |
|---------------------------------|--------------------------------|--------------------------|---------------------|-------|----|--------------------|--|
| S.No. | Name of Test | Method of Test | Results | Unit | L | imit as per NAAQS* | |
| 3 | Particulate Matter (as PM2.5) | IS:5182 (Part 24):2019 | 42.8 | μg/m³ | | 60 (Max.) | |
| | | | 79.8 | μg/m³ | | 100 (Max.) | |
| 5 | Carbon Monoxide (as CO) | IS 5182 (Part -10):1999 | 0.64 | mg/m³ | | 4 (Max.) | |
| | Lead (as Pb) | USEPA Method IO 3.5 1999 | BLQ(LOQ:0.000 5) | µg/m³ | | 1.0 (Max.) | |

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. Dinesh Jangid).

End of the Report

Page No. 2/2

26/06/2024 Reviewed By Jaipur 26/06/2024
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Authorised Signatory





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Tel: 0141-4805672 | Email – lab@irclass.org | Website : www.isspllab.com

TEST REPORT

ULR: TC584324100000218F

| | Report No. ISSPL/ | EN/24-25/10114 | Date | 26/06/2024 | | | |
|------|--------------------------------------|--|---|------------|--|--|--|
| 1 | Name & address of Customer | Talwandi Sabo Power Ltd. 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab | | | | | |
| 2. | Reference No. | PO - WA24Y-00002, Date: 10/05/ 88886) | O - WA24Y-00002, Date: 10/05/2024 & TRF Dated: 17/06/2024 (Reg. No. 8886) | | | | |
| 3. | Material Identification with details | Ambient Air Quality Monitoring: Date and Time of Sampling. 13/06/2024 (11 am) to 14/06/2024 (11:20 am), Location: Station No.04 (CAAQMS) Core Zo | | | | | |
| 4. | Date of Sampling | 13/06/2024 - 14/06/2024 | 13/06/2024 - 14/06/2024 | | | | |
| 5. | Time of Sampling | 11:20 am to 11:20 am | 11:20 am to 11:20 am | | | | |
| 6. | Sampling Location | Station No.04 (CAAQMS) Core Zone | | | | | |
| 7. | Sampling Protocol | IS:5182 (Pt-14) 2000 | | | | | |
| 8. | Duration of Sampling (Minutes) | 1440 Min. | | | | | |
| 9. | Test Started On | 19/06/2024 | | | | | |
| 10. | Test Completed On | 21/06/2024 | | | | | |
| 11. | | 19/06/2024 To 21/06/2024 | | | | | |
| 0000 | | Human and Plant Site Activities | | | | | |
| 12. | | Min. 29°C, Max. 43°C | | | | | |
| 12. | . Ambient Temperature (oC) | 200 April 200 Ap | | | | | |
| | | ng Clear Sky | | | | | |

RESULTS

| S.No. | Name of Test | Method of Test | Results | Unit | Limit as per NAAQS* |
|-------|---------------------------|------------------------------------|---------|-------|---------------------|
| I.Che | mical Parameter:- | | | | |
| | 1. Atmospheric Pollution | | | | |
| 1 | Sulphur Dioxide (as SO2) | IS:5182 (Part 2)-2001, Reaff :2017 | 13.1 | μg/m³ | 80 (Max.) |
| 2 | Nitrogen Dioxide(as NO2) | IS:5182 (Part 6)-2006, Reaff :2017 | 27.2 | μg/m³ | 80 (Max.) |

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26/06/2024

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Parmeshwar Lal Assist. Manager







Testing Laboratory







TEST REPORT

ULR: TC584324100000218F

| ı | Report No. | SSPL/EN/24-25/10114 | | Date | 26/06/2024 |
|-------|--------------------------------|--------------------------|---------------------|-------|---------------------|
| S.No. | Name of Test | Method of Test | Results | Unit | Limit as per NAAQS* |
| 3 | Particulate Matter (as PM2.5) | IS:5182 (Part 24):2019 | 48.0 | µg/m³ | 60 (Max.) |
| | Particulate Matter (as PM10) | | 88.9 | µg/m³ | 100 (Max.) |
| 5 | Carbon Monoxide (as CO) | IS 5182 (Part -10):1999 | 0.72 | mg/m³ | 4 (Max.) |
| 6 | Lead (as Pb) | USEPA Method IO 3.5 1999 | BLQ(LOQ:0.000 5) | µg/m³ | 1.0 (Max.) |

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. Dinesh Jangid).

End of the Report

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26/06/2024

Reviewed By

Jaipur 26/06/2024
Parmeshwar Lal
Assist. Manager
Authorised Signatory





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TEST REPORT

ULR: TC584324100000213F

| | Report No. | SSPL/EN/24-25/10096/A | Date | 26/06/2024 | | |
|-----|--------------------------------------|--|--------------------------|------------|--|--|
| 1. | Name & address of Customer | Talwandi Sabo Power Ltd. 3X660MW Thermal Power Plan Banawala, Mansa District Punja | | 55 | | |
| 2. | Reference No. | PO - WA24Y-00002, Date: 10/05/2024 & TRF Dated: 17/06/2024 (I 88904) | | | | |
| 3. | Material Identification with details | Location: Boiler No.1 (Third Unit, Unit-1) 660 MW, Qty. 1 No. | | | | |
| 4. | Sample code | 88904 | | | | |
| 5. | Date of sampling | 14/06/2024 | 14/06/2024 | | | |
| 6. | Date of Sample testing | 18/06/2024 To 21/06/2024 | 18/06/2024 To 21/06/2024 | | | |
| 7. | Sampling duration (in minute | s) 28 Min. | 28 Min. | | | |
| 8. | Sampling Location | Boiler No.1 (Third Unit, Unit-1) | 660 MW | | | |
| 9. | Sampling Protocol | IS:11255(Pt-1) 1985 (RA 2014) | 30 | | | |
| 10. | Type of stack | MS Circular | | | | |
| 11. | Stack attached to | Boiler Stack | | | | |
| 12. | Stack Diameter (in meters) | 7.2 Mtr. | | | | |
| 13. | Stack height (in meters) | 275 Mtr. | | | | |
| 14. | Type and quantity of fuel used | d Coal | | | | |
| 15. | Instrument Code & Calibratio | n Status ISSPL/INS/C/133 | | ā | | |
| 16. | Control Measures if any | (* | | | | |
| 17. | Ambient Temperature (oC) | 49°C | | | | |
| 18. | Flue Gas Temperature (oC) | 135°C | 157.5 | | | |

RESULTS

| S.No. | Test Parameters | Test Method | Results | Units | Specifications |
|--------|----------------------------|----------------------------------|---------|--------|----------------|
| 31. CI | nemical Testing:- | | | | |
| | 1. Atmospheric Pollution:- | | | Ma | |
| 1 | Particulate Matter (PM) | IS 11255 (Part 1) 1985, RA: 2019 | 39.97 | mg/Nm3 | Not Specified |

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alsaniya

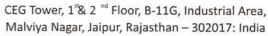




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ULR : TC584324100000213F

| Report No. | | ISSPL/EN/24-25/10096/A | ISSPL/EN/24-25/10096/A | | 26/06/2024 |
|------------|--------------------------|---|------------------------|--------|----------------|
| S.No. | Test Parameters | Test Method | Results | Units | Specifications |
| 2 | Sulphur dioxide (SO2) | USEPA 6C: 1996/By Flue Gas Analyzer | 1158 | mg/Nm3 | Not Specified |
| 3 | Oxides of Nitrogen (NOX) | USEPA 7E: 1990/By Flue Gas Analyzer | 180 | mg/Nm3 | Not Specified |
| 4 | со | IS 13270: 1992, Reaff. 2014 ORSAT Analysis/ USEPA 3/ USEPA 10 | 4.35 | mg/Nm3 | Not Specified |
| 5 | Mercury (Hg) | USEPA 29:1996/101A:1991 | BLQ (LOQ 0.001) | mg/Nm3 | Not Specified |

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

Remark: - Sample Conforms to Limit as per Environmental (Protection) Act, 1986 with respect to above tested Parameters.

Remark: Sampling done by ISSPL Representative (Mr. Dinesh Jangid).

End of the Report

Page No. 2/2

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TEST REPORT

| | Report No. | SPL/EN/24-25/10096/B | Date | 26/06/2024 | | |
|-----|--------------------------------------|--|---|------------|--|--|
| 1. | Name & address of Customer | Talwandi Sabo Power Ltd. 3X660MW Thermal Power Plant Banawala, Mansa District Punjal | | • | | |
| 2. | Reference No. | PO - WA24Y-00002, Date: 10/05 88904) | PO - WA24Y-00002, Date: 10/05/2024 & TRF Dated: 17/06/2024 (Re 88904) | | | |
| 3. | Material Identification with details | Boiler Stack: Bate and Time of Sampling: 14700/2024 (12.40 pm to 01.0 | | | | |
| 4. | Sample code | 88904 | 38904 | | | |
| 5. | Date of sampling | 14/06/2024 | 14/06/2024 | | | |
| 6. | Date of Sample testing | 18/06/2024 To 21/06/2024 | 18/06/2024 To 21/06/2024 | | | |
| 7. | Sampling duration (in minutes) | 28 Min. | 28 Min. | | | |
| 8. | Sampling Location | Boiler No.1 (Third Unit, Unit-1) 6 | 60 MW | | | |
| 9. | Sampling Protocol | IS:11255(Pt-1) 1985 (RA 2014) | | | | |
| 10. | Type of stack | MS Circular | | | | |
| 11. | Stack attached to | Boiler Stack | | | | |
| 12. | Stack Diameter (in meters) | 7.2 Mtr. | | | | |
| 13. | Stack height (in meters) | 275 Mtr. | 57 | | | |
| 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) | 49°C | | | | |
| 18. | Flue Gas Temperature (oC) | 135°C | | | | |

RESULTS

| S.No. | Test Parameters | Test Method | Results | Units | Specifications |
|----------|-------------------------|--------------------------------------|---------|-------|----------------|
| 3I. Chem | ical Testing:- | | | | |
| 1. / | Atmospheric Pollution:- | | | | |
| 1 Tei | mperature | CPCB Emission Regulation(Part -3) | 120 | °C | Not Specified |

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TEST REPORT

| Report No. | | ISSPL/EN/24-25/10096/B | ISSPL/EN/24-25/10096/B | | e 26/06/2024 |
|------------|-----------------|-----------------------------------|------------------------|-------|----------------|
| S.No. | Test Parameters | Test Method | Results | Units | Specifications |
| 2 | Velocity of Gas | CPCB Emission Regulation(Part -3) | 26.1 | m/s | Not Specified |
| 3 | O2 | USPA 3A:1989 | 6.2 | % | Not Specified |
| 4 | CO2 | USPA 3A:1989 | 11.3 | % | Not Specified |
| 5 | Moisture | USEPA 4 | 13.5 | % | Not Specified |

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

Remark: - Sample Conforms to Limit as per Environmental (Protection) Act, 1986 with respect to above tested Parameters.

Remark: Sampling done by ISSPL Representative (Mr. Dinesh Jangid).

End of the Report

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TEST REPORT

ULR: TC584324100000212F

| | Report No. | SSPL/EN/24-25/10097/A | Date | 26/06/2024 | | |
|------|---|---|---|------------|--|--|
| 1. | Name & address of Customer | Talwandi Sabo Power Ltd. 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab | a a | 2 × | | |
| 2. | Reference No. | PO - WA24Y-00002, Date: 10/05/2 88903) | PO - WA24Y-00002, Date: 10/05/2024 & TRF Dated: 17/06/2024 (Reg. No. 88903) | | | |
| ٠. ا | Material Identification with details Boiler Stack: Date and Time of Sampling: 14/06/2024 (12:02 pm to 12:3 Location: Boiler No.2 (Third Unit, Unit-2) 660 MW, Qty. 1 No. | | | | | |
| 4. | Sample code | 88903 | | | | |
| 5. | Date of sampling | 14/06/2024 | | | | |
| 6. | Date of Sample testing | 18/06/2024 To 21/06/2024 | | | | |
| 7. | Sampling duration (in minutes | 28 Min. | | | | |
| 8. | Sampling Location | Boiler No.2 (Third Unit, Unit-2) 660 | MW | | | |
| 9. | Sampling Protocol | | | | | |
| 10. | Type of stack | MS Circular | | | | |
| 11. | Stack attached to | Boiler Stack | | | | |
| 12. | Stack Diameter (in meters) | 7.2 Mtr. | 7 | | | |
| 13. | Stack height (in meters) | 275 Mtr. | | | | |
| 14. | Type and quantity of fuel used | Coal | | V | | |
| 15. | Instrument Code & Calibration | Status ISSPL/INS/C/133 | | | | |
| 16. | Control Measures if any | - | | | | |
| 17. | Ambient Temperature (oC) | 49°C | | | | |
| 18. | Flue Gas Temperature (oC) | 136°C | | | | |

RESULTS

| S.No. | Test Parameters | Test Method | Results | Units | Specifications |
|--------|----------------------------|----------------------------------|---------|--------|----------------|
| 3I. CI | nemical Testing:- | * | | | |
| | 1. Atmospheric Pollution:- | | | | |
| 1 | Particulate Matter (PM) | IS 11255 (Part 1) 1985, RA: 2019 | 38.95 | mg/Nm3 | Not Specified |

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Dinesh Palsaniya



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Tel: 0141-4805672 | Email – lab@irclass.org | Website : www.isspllab.com





TEST REPORT

ULR: TC584324100000212F

| Report No. | | ISSPL/EN/24-25/10097/A | | Date | 26/06/2024 |
|------------|--------------------------|---|--------------------|--------|----------------|
| S.No. | Test Parameters | Test Method | Results | Units | Specifications |
| 2 | Sulphur dioxide (SO2) | USEPA 6C: 1996/By Flue Gas Analyzer | 1139 | mg/Nm3 | Not Specified |
| 3 | Oxides of Nitrogen (NOX) | USEPA 7E: 1990/By Flue Gas Analyzer | 182 | mg/Nm3 | Not Specified |
| 4 | со | IS 13270: 1992, Reaff. 2014 ORSAT Analysis/ USEPA 3/ USEPA 10 | 4.12 | % | Not Specified |
| 5 | Mercury (Hg) | USEPA 29:1996/101A:1991 | BLQ (LOQ 0.001) | mg/Nm3 | læ. |

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

Remark: - Sample Conforms to Limit as per Environmental (Protection) Act, 1986 with respect to above tested Parameters.

Remark: Sampling done by ISSPL Representative (Mr. Dinesh Jangid).

End of the Report

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TEST REPORT

| | Report No. | SSPL/EN/24-25/10097/B | Date | 26/06/2024 | | |
|-----|--------------------------------------|---|---|------------|--|--|
| 1. | Name & address of Customer | Talwandi Sabo Power Ltd. 3X660MW Thermal Power Plai Banawala, Mansa District Punj | | | | |
| 2. | Reference No. | PO - WA24Y-00002, Date: 10/0 88903) | PO - WA24Y-00002, Date: 10/05/2024 & TRF Dated: 17/06/2024 (Reg. No. 88903) | | | |
| 3. | Material Identification with details | | Boiler Stack: Date and Time of Sampling: 14/06/2024 (12:02 pm to 12:30 pm Location: Boiler No.2 (Third Unit, Unit-2) 660 MW, Qty. 1 No. | | | |
| 4. | Sample code | 88903 | | | | |
| 5. | Date of sampling | 14/06/2024 | | <u> </u> | | |
| 6. | Date of Sample testing | 18/06/2024 To 21/06/2024 | | | | |
| 7. | Sampling duration (in minutes |) 28 Min. | | | | |
| 8. | Sampling Location | Boiler No.2 (Third Unit, Unit-2) | 660 MW | | | |
| 9. | Sampling Protocol | | | | | |
| 10. | Type of stack | MS Circular | | | | |
| 11. | Stack attached to | Boiler Stack | | | | |
| 12. | Stack Diameter (in meters) | 7.2 Mtr. | | | | |
| 13. | Stack height (in meters) | 275 Mtr. | 9 | | | |
| 14. | Type and quantity of fuel used | Coal | | | | |
| 15. | Instrument Code & Calibration | Status ISSPL/INS/C/133 | | | | |
| 16. | Control Measures if any | y-0 | | | | |
| 17. | Ambient Temperature (oC) | 49°C | | | | |
| | | | | | | |

RESULTS

| S.No. | Test Parameters | Test Method | Results | Units | Specifications |
|----------|-------------------------|--------------------------------------|---------|-------|----------------|
| 3I. Chen | nical Testing:- | | A Pro- | | |
| 1. | Atmospheric Pollution:- | | | | |
| 1 Te | emperature | CPCB Emission Regulation(Part -3) | 120 | °C | Not Specified |

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Authorised Signatory

0 26/06/2024 Diglesh Palsaniya

Jaipur





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TEST REPORT

| Report No. | | ISSPL/EN/24-25/10097/B | | Date | e 26/06/2024 |
|------------|-----------------|--------------------------------------|---------|-------|----------------|
| S.No. | Test Parameters | Test Method | Results | Units | Specifications |
| 2 | Velocity of Gas | CPCB Emission Regulation(Part -3) | 26.8 | m/s | Not Specified |
| 3 | O2 | USPA 3A:1989 | 6.5 | % | Not Specified |
| 4 | CO2 | USPA 3A:1989 | 11.0 | % | Not Specified |
| 5 | Moisture | USEPA 4 | 12.7 | % | Not Specified |

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

Remark: - Sample Conforms to Limit as per Environmental (Protection) Act, 1986 with respect to above tested Parameters.

Remark: Sampling done by ISSPL Representative (Mr. Dinesh Jangid).

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TEST REPORT

ULR: TC584324100000211F

| | Report No. | SSPL/EN/24-25/10098/A | Date | 26/06/2024 | | |
|-----|--------------------------------------|---|--|-------------------|--|--|
| 1. | Name & address of Customer | Talwandi Sabo Power Ltd. 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab | | | | |
| 2. | Reference No. | PO - WA24Y-00002, Date: 10/05 88902) | /2024 & TRF Dated: 17/0 | 06/2024 (Reg. No. | | |
| 3. | Material Identification with details | | Boiler Stack: Date and Time of Sampling: 14/06/2024 (11:22 am to 11:50 am) Location: Boiler No.3 (Third Unit, Unit-3) 660 MW, Qty. 1 No. | | | |
| 4. | Sample code | 88902 | 88902 | | | |
| 5. | Date of sampling | 14/06/2024 | 14/06/2024 | | | |
| 6. | Date of Sample testing | 18/06/2024 To 21/06/2024 | | | | |
| 7. | Sampling duration (in minutes) | 28 Min. | | | | |
| 8. | Sampling Location | Boiler No.3 (Third Unit, Unit-3) 66 | 0 MW | | | |
| 9. | Sampling Protocol | IS:11255(Pt-1) 1985 (RA 2014) | 7 | | | |
| 10. | Type of stack | MS Circular | | | | |
| 11. | Stack attached to | Boiler Stack | | | | |
| 12. | Stack Diameter (in meters) | 7.2 Mtr. | | | | |
| 13. | Stack height (in meters) | 275 Mtr. | | | | |
| 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) | 49°C | | | | |
| 18. | Flue Gas Temperature (oC) | 138°C | | | | |

RESULTS

| S.No. | Test Parameters | Test Method | Results | Units | Specifications |
|--------|----------------------------|----------------------------------|----------------|---------------|----------------|
| 3I. Ch | emical Testing:- | | September 2012 | 1 1 1239 2000 | - promoduono |
| | 1. Atmospheric Pollution:- | | | • | |
| 1 | Particulate Matter (PM) | IS 11255 (Part 1) 1985, RA: 2019 | 37.98 | mg/Nm3 | Not Specified |

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TEST REPORT

ULR: TC584324100000211F

| Report No. | | ISSPL/EN/24-25/10098/A | | Date | 26/06/2024 |
|------------|--------------------------|---|---------------|--------|----------------|
| S.No. | Test Parameters | Test Method | Results | Units | Specifications |
| 2 | Sulphur dioxide (SO2) | USEPA 6C: 1996/By Flue Gas Analyzer | 1141 | mg/Nm3 | Not Specified |
| 3 | Oxides of Nitrogen (NOX) | USEPA 7E: 1990/By Flue Gas Analyzer | 187 | mg/Nm3 | Not Specified |
| 4 | СО | IS 13270: 1992, Reaff. 2014 ORSAT Analysis/ USEPA 3/ USEPA 10 | 3.90 | mg/Nm3 | Not Specified |
| 5 | Mercury (Hg) | USEPA 29:1996/101A:1991 | BLQ(LOQ .001) | mg/Nm3 | 9 2 0 |

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

Remark: - Sample Conforms to Limit as per Environmental (Protection) Act, 1986 with respect to above tested Parameters.

Remark: Sampling done by ISSPL Representative (Mr. Dinesh Jangid).

End of the Report

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TEST REPORT

| Report No. ISSPL/EN | | SPL/EN/24-25/10098/B | Date | 26/06/2024 | | | |
|---------------------|--------------------------------------|---|--|--|--|--|--|
| 1. | Name & address of Customer | Talwandi Sabo Power Ltd. 3X660MW Thermal Power Plant, Banawala, Mansa District Punjab | 3X660MW Thermal Power Plant, | | | | |
| 2. | Reference No. | PO - WA24Y-00002, Date: 10/05/2 88902) | 024 & TRF Dated: 17/0 | 06/2024 (Reg. No. | | | |
| 3. | Material Identification with details | Boiler Stack: Date and Time of San Location: Boiler No.3 (Third Unit, U | Chiana Carrier and | Control of the Contro | | | |
| 4. | Sample code | 88902 | | | | | |
| 5. | Date of sampling | 14/06/2024 | | | | | |
| 6. | Date of Sample testing | 18/06/2024 To 21/06/2024 | | | | | |
| 7. | Sampling duration (in minutes) | 28 Min. | | | | | |
| 8. | Sampling Location | Boiler No.3 (Third 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 | Boiler Stack | | | | | |
| 12. | Stack Diameter (in meters) | 7.2 Mtr. | | | | | |
| 13. | Stack height (in meters) | 275 Mtr. | | | | | |
| 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) | 49°C | | | | | |
| 18. | Flue Gas Temperature (oC) | 138°C | | | | | |

RESULTS

| S.No. | Test Parameters | Test Method | Results | Units | Specifications | |
|----------|-------------------------|-----------------------------------|----------------|-------|----------------|--|
| 3I. Chem | ical Testing:- | | - 1 | | | |
| 1. / | Atmospheric Pollution:- | | | | | |
| 1 Te | mperature | CPCB Emission Regulation(Part -3) | 117 | °C | Not Specified | |

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TEST REPORT

| Report No. | | ISSPL/EN/24-25/10098/B | | Date 26/06/2024 | |
|------------|-----------------|--------------------------------------|---------|-----------------|----------------|
| S.No. | Test Parameters | Test Method | Results | Units | Specifications |
| 2 | Velocity of Gas | CPCB Emission Regulation(Part -3) | 26.6 | m/s | Not Specified |
| 3 | O2 | USPA 3A:1989 | 5.8 | % | Not Specified |
| 4 | CO2 | USPA 3A:1989 | 10.80 | % | Not Specified |
| 5 | Moisture | USEPA 4 | 12.8 | % | Not Specified |

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

Remark: - Sample Conforms to Limit as per Environmental (Protection) Act, 1986 with respect to above tested Parameters.

Remark: Sampling done by ISSPL Representative (Mr. Dinesh Jangid).

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