

The Sandur Manganese & Iron Ores Limited

(An ISO 9001:2015; ISO 14001:2015 and 45001:2018 certified company)
CIN: L85110KA1954PLC000759; Website: www.sandurgroup.com

REGISTERED OFFICE

'SATYALAYA', No.266
Ward No.1, Palace Road
Sandur - 583 119, Ballari District
Karnataka, India
Tel: +91 8395 260301/ 283173-199
Fax: +91 8395 260473



CORPORATE OFFICE

'SANDUR HOUSE', No.9
Bellary Road, Sadashivanagar
Bengaluru - 560 080
Karnataka, India
Tel: +91 80 4152 0176 - 79 / 4547 3000
Fax: +91 80 4152 0182

Ref No: SMIORE/PLANT/ENV/MR/2024-25/51

9th Sep 2024

To,

The Environmental Officer,
Regional Office & Zonal office
Karnataka State Pollution Control Board
Sri Sai Sharan plaza, No. 71/A, 2nd floor,
Dam road, Hosapete- 583203, Vijayanagar District.

Subject: Submission of monthly environmental monitoring report for the month of **August-2024**.

Reference: 1) CFO No. AW-329576 PCB ID 29470 Dated 02.02.2022
2) Amended CFO No. AW-335581 PCB ID 29470 Dated 17.01.2023

Dear Sir,

With reference to the subject cited above, please find here with Environmental Monitoring reports of M/s The Sandur Manganese & Iron Ores Limited, Vyasankere, Hanumanahalli Post, 583222, Hosapete Taluk, Vijayanagara District., for the Period August -2024 for your kind perusal.

Kindly acknowledge receipt of the same.

Thanking you,

For The Sandur Manganese & Iron Ores Limited,

Parvatareddy Patil
Senior General Manager-Plant



ಸ್ವೀಕೃತಿ
ಕ.ರಾ.ಮಾ.ನಿ. ಮಂಡಳಿ
ಪ್ರಾದೇಶಿಕ ಕಛೇರಿ ವಿಜಯನಗರ ಹೊಸಪೇಟೆ
ಸಂಖ್ಯೆ/ದಿನಾಂಕ: 9/9/24 ಸಹಿ

Encl: Environmental Monitoring Report August -2024

MINES OFFICE: Deogiri - 583112, Sandur Taluk, Ballari District
Tel: +91 8395 271025 / 28 / 29 / 40; Fax: +91 8395 271066

PLANT OFFICE: Metal & Ferroalloy Plant, Vyasankere, Mariyammanahalli - 583 222, Hosapete Taluk, Vijayanagara District
Tel: +91 8394 244450 / 244335

ENVIRONMENTAL MONITORING REPORT

August, 2024

Project : The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant),
Vyasanakere, Hanumanahalli Village,
Hospet Taluk,

ENVIRONMENTAL LABORATORY

(Unit of Mineral Engineering Services)

(Accredited by NABL &, MOEF&CC Under E(P) 1986)

#948, 2nd Cross, Kammanahalli Main Road,

St Thomas Town Post, Bangalore- 560 084, Karnataka,

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ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

Recognised by BIS, FSSAI, ISO:45001:2018 Certified Laboratory

Recognised by MoEFCC(CPCB) under E(P) Act 1986 recognition valid upto 23.05.2025

TEST REPORT

AMBIENT AIR QUALITY

Table No. 1

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasankere, Hanumanahalli Village, Hospet Taluk, Ballari Dist , | | | | | | | |
| Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services) | | | | | | | |
| Station at & Code : A1, Near Existing AAQMS 01 (SMIORE Schools) | | | | | | | |
| Instrument Used : Envirotech APM 460BL Serial No. 2914-DTJ-2020 Envirotech APM -550, Serial No. 520-DTG-2017 | | | | | | | |
| Calibration due date of instrument : 24.03.2025 | | | | | | | |
| Duration : 24 Hrs | | | | | | | |
| Issue date : 02.09.2024 | | | | | | | |
| Reference IS 5182 & Lab SOP | | | | | | | |

| Date of Sampling | Lab Code | Sulphur Dioxide (SO ₂), µg/m ³ | Nitrogen Dioxide (NO ₂), µg/m ³ | PM ₁₀ , (µg/m ³) | PM _{2.5} , (µg/m ³) | Ammonia (NH ₃), µg/m ³ | Benzene (C ₆ H ₆), µg/m ³ |
|--|-----------------|---|--|---|--|---|---|
| 02.08.2024 | N/24/08/02-0034 | 7 | 9 | 45 | 25 | <20 | <1 |
| 03.08.2024 | N/24/08/02-0049 | 11 | 14 | 54 | 28 | <20 | <1 |
| 09.08.2024 | N/24/08/3-0118 | 7 | 11 | 57 | 32 | <20 | <1 |
| 10.08.2024 | N/24/08/3-0204 | 12 | 14 | 36 | 18 | <20 | <1 |
| 12.08.2024 | N/24/08/4-0016 | 8 | 11 | 54 | 27 | <20 | <1 |
| 13.08.2024 | N/24/08/4-0069 | 11 | 13 | 47 | 24 | <20 | <1 |
| 23.08.2024 | N/24/08/4-0408 | 10 | 12 | 58 | 33 | <20 | <1 |
| 24.08.2024 | N/24/08/5-0031 | 7 | 10 | 56 | 27 | <20 | <1 |
| 26.08.2024 | N/24/08/5-0091 | 13 | 14 | 35 | 18 | <20 | <1 |
| 27.08.2024 | N/24/08/5-0143 | 7 | 9 | 49 | 23 | <20 | <1 |
| Limits for Industrial , Residential, Rural and other Areas | | 80 24 Hrs | 80 24 Hrs | 100 24 Hrs | 60 24 Hrs | 400 24 Hrs | 5 Annual |

| Date of Sampling | Lab Code | Lead (Pb), µg/m ³ | Nickel (Ni), ng/m ³ | Arsenic (As), ng/m ³ | Benzo(a) Pyrene (BaP), ng/m ³ | Carbon Monoxide* (CO), mg/m ³ | Ozone* (O ₃), µg/m ³ |
|--|-----------------|------------------------------|--------------------------------|---------------------------------|--|--|---|
| 02.08.2024 | N/24/08/02-0034 | 0.11 | <0.1 | <0.5 | <0.5 | 0.29 | 29 |
| 03.08.2024 | N/24/08/02-0049 | 0.14 | <0.1 | <0.5 | <0.5 | 0.35 | 30 |
| 09.08.2024 | N/24/08/3-0118 | 0.16 | <0.1 | <0.5 | <0.5 | 0.21 | 24 |
| 13.08.2024 | N/24/08/4-0069 | 0.09 | <0.1 | <0.5 | <0.5 | 0.30 | 26 |
| 23.08.2024 | N/24/08/4-0408 | 0.14 | <0.1 | <0.5 | <0.5 | 0.32 | 21 |
| 13.08.2024 | N/24/08/4-0069 | 0.09 | <0.1 | <0.5 | <0.5 | 0.30 | 26 |
| 23.08.2024 | N/24/08/4-0408 | 0.14 | <0.1 | <0.5 | <0.5 | 0.32 | 21 |
| 24.08.2024 | N/24/08/5-0031 | 0.17 | <0.1 | <0.5 | <0.5 | 0.36 | 28 |
| 26.08.2024 | N/24/08/5-0091 | 0.15 | <0.1 | <0.5 | <0.5 | 0.35 | 20 |
| 27.08.2024 | N/24/08/5-0143 | 0.19 | <0.1 | <0.5 | <0.5 | 0.32 | 26 |
| Limits for Industrial , Residential, Rural and other Areas | | 1.0 24 Hrs | 20 Annual | 6 Annual | 1 Annual | 4 1 Hr | 180 1 Hr |

Note : * Parameters monitored for period of 1 hr

Arshiya Kousar

ARSHIYA KOUSAR
Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory

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TEST REPORT

AMBIENT AIR QUALITY

Table No. 2

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant),
Vyasnakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,

Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services)

Station at & Code : A2, Existing Water Reservoir (Near WTP Plant)

Instrument Used : Envirotech APM 460BL Serial No. 2913-DTJ-2020
Envirotech APM -550, Serial No. 89 DTJ2012

Calibration due date of instrument : 24.03.2025

Duration : 24 Hrs

Issue date : 02.09.2024

Reference IS 5182 & Lab SOP

| Date of Sampling | Lab Code | Sulphur Dioxide (SO ₂), µg/m ³ | Nitrogen Dioxide (NO ₂), µg/m ³ | PM ₁₀ , (µg/m ³) | PM _{2.5} , (µg/m ³) | Ammonia (NH ₃), µg/m ³ | Benzene (C ₆ H ₆), µg/m ³ |
|--|-----------------|---|--|---|--|---|---|
| 02.08.2024 | N/24/08/02-0035 | 11 | 13 | 53 | 29 | <20 | <1 |
| 03.08.2024 | N/24/08/02-0050 | 10 | 11 | 44 | 23 | <20 | <1 |
| 09.08.2024 | N/24/08/3-0119 | 8 | 14 | 56 | 32 | <20 | <1 |
| 10.08.2024 | N/24/08/3-0205 | 9 | 12 | 53 | 27 | <20 | <1 |
| 12.08.2024 | N/24/08/4-0017 | 9 | 11 | 47 | 25 | <20 | <1 |
| 13.08.2024 | N/24/08/4-0070 | 13 | 15 | 50 | 28 | <20 | <1 |
| 23.08.2024 | N/24/08/4-0409 | 10 | 15 | 58 | 33 | <20 | <1 |
| 24.08.2024 | N/24/08/5-0032 | 8 | 9 | 49 | 26 | <20 | <1 |
| 26.08.2024 | N/24/08/5-0092 | 7 | 12 | 52 | 24 | <20 | <1 |
| 27.08.2024 | N/24/08/5-0144 | 9 | 14 | 44 | 22 | <20 | <1 |
| Limits for Industrial , Residential, Rural and other Areas | | 80 24 Hrs | 80 24 Hrs | 100 24 Hrs | 60 24 Hrs | 400 24 Hrs | 5 Annual |

| Date of Sampling | Lab Code | Lead (Pb), µg/m ³ | Nickel (Ni), ng/m ³ | Arsenic (As), ng/m ³ | Benzo(a) Pyrene (BaP), ng/m ³ | Carbon Monoxide* (CO), mg/m ³ | Ozone* (O ₃), µg/m ³ |
|--|-----------------|------------------------------|--------------------------------|---------------------------------|--|--|---|
| 02.08.2024 | N/24/08/02-0035 | 0.10 | <0.1 | <0.5 | <0.5 | 0.35 | 20 |
| 03.08.2024 | N/24/08/02-0050 | 0.17 | <0.1 | <0.5 | <0.5 | 0.33 | 27 |
| 09.08.2024 | N/24/08/3-0119 | 0.15 | <0.1 | <0.5 | <0.5 | 0.31 | 20 |
| 10.08.2024 | N/24/08/3-0205 | 0.11 | <0.1 | <0.5 | <0.5 | 0.34 | 26 |
| 23.08.2024 | N/24/08/4-0409 | 0.11 | <0.1 | <0.5 | <0.5 | 0.33 | 25 |
| 10.08.2024 | N/24/08/3-0205 | 0.11 | <0.1 | <0.5 | <0.5 | 0.34 | 26 |
| 23.08.2024 | N/24/08/4-0409 | 0.11 | <0.1 | <0.5 | <0.5 | 0.33 | 25 |
| 24.08.2024 | N/24/08/5-0032 | 0.13 | <0.1 | <0.5 | <0.5 | 0.35 | 27 |
| 26.08.2024 | N/24/08/5-0092 | 0.19 | <0.1 | <0.5 | <0.5 | 0.29 | 26 |
| 27.08.2024 | N/24/08/5-0144 | 0.14 | <0.1 | <0.5 | <0.5 | 0.26 | 22 |
| Limits for Industrial , Residential, Rural and other Areas | | 1.0 24 Hrs | 20 Annual | 6 Annual | 1 Annual | 4 1 Hr | 180 1 Hr |

Note : * Parameters monitored for period of 1 hr

Arshiy Kousar

ARSHIYA KOUSAR
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Govt. Analyst / Authorised Signatory

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TEST REPORT

AMBIENT AIR QUALITY

Table No. 3

| Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasnakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist , | | | | | | | |
|--|-----------------|---|--|---|--|---|---|
| Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services) | | | | | | | |
| Station at & Code : A3, Galemmanagudi | | | | | | | |
| Instrument Used : Envirotech APM 460BL Serial No. 2905-DTJ-2020 Envirotech APM -550, Serial No.86 DTJ2012 | | | | | | | |
| Calibration due date of instrument : 24.03.2025 | | | | | | | |
| Duration : 24 Hrs | | | | | | | |
| Issue date : 02.09.2024 | | | | | | | |
| Reference IS 5182 & Lab SOP | | | | | | | |
| Date of Sampling | Lab Code | Sulphur Dioxide (SO ₂), µg/m ³ | Nitrogen Dioxide (NO ₂), µg/m ³ | PM ₁₀ , (µg/m ³) | PM _{2.5} , (µg/m ³) | Ammonia (NH ₃), µg/m ³ | Benzene (C ₆ H ₆), µg/m ³ |
| 02.08.2024 | N/24/08/02-0036 | 11 | 13 | 52 | 29 | <20 | <1 |
| 03.08.2024 | N/24/08/02-0051 | 8 | 10 | 54 | 28 | <20 | <1 |
| 09.08.2024 | N/24/08/3-0120 | 11 | 15 | 35 | 18 | <20 | <1 |
| 10.08.2024 | N/24/08/3-0206 | 9 | 10 | 41 | 22 | <20 | <1 |
| 12.08.2024 | N/24/08/4-0018 | 16 | 20 | 51 | 27 | <20 | <1 |
| 13.08.2024 | N/24/08/4-0071 | 9 | 12 | 46 | 24 | <20 | <1 |
| 23.08.2024 | N/24/08/4-0410 | 11 | 14 | 53 | 28 | <20 | <1 |
| 24.08.2024 | N/24/08/5-0033 | 12 | 14 | 46 | 23 | <20 | <1 |
| 26.08.2024 | N/24/08/5-0093 | 9 | 11 | 55 | 29 | <20 | <1 |
| 27.08.2024 | N/24/08/5-0145 | 14 | 15 | 39 | 18 | <20 | <1 |
| Limits for Industrial , Residential, Rural and other Areas | | 80 24 Hrs | 80 24 Hrs | 100 24 Hrs | 60 24 Hrs | 400 24 Hrs | 5 Annual |

| Date of Sampling | Lab Code | Lead (Pb), µg/m ³ | Nickel (Ni), ng/m ³ | Arsenic (As), ng/m ³ | Benzo(a) Pyrene (BaP), ng/m ³ | Carbon Monoxide* (CO), mg/m ³ | Ozone* (O ₃), µg/m ³ |
|--|-----------------|------------------------------|--------------------------------|---------------------------------|--|--|---|
| 02.08.2024 | N/24/08/02-0036 | 0.17 | <0.1 | <0.5 | <0.5 | 0.22 | 21 |
| 03.08.2024 | N/24/08/02-0051 | 0.13 | <0.1 | <0.5 | <0.5 | 0.25 | 25 |
| 09.08.2024 | N/24/08/3-0120 | 0.15 | <0.1 | <0.5 | <0.5 | 0.19 | 23 |
| 10.08.2024 | N/24/08/3-0206 | 0.10 | <0.1 | <0.5 | <0.5 | 0.28 | 26 |
| 09.08.2024 | N/24/08/3-0120 | 0.15 | <0.1 | <0.5 | <0.5 | 0.19 | 23 |
| 13.08.2024 | N/24/08/4-0071 | 0.18 | <0.1 | <0.5 | <0.5 | 0.26 | 22 |
| 23.08.2024 | N/24/08/4-0410 | 0.11 | <0.1 | <0.5 | <0.5 | 0.30 | <20 |
| 24.08.2024 | N/24/08/5-0033 | 0.13 | <0.1 | <0.5 | <0.5 | 0.32 | 20 |
| 26.08.2024 | N/24/08/5-0093 | 0.14 | <0.1 | <0.5 | <0.5 | 0.35 | 23 |
| 27.08.2024 | N/24/08/5-0145 | 0.19 | <0.1 | <0.5 | <0.5 | 0.31 | 25 |
| Limits for Industrial , Residential, Rural and other Areas | | 1.0 24 Hrs | 20 Annual | 6 Annual | 1 Annual | 4 1 Hr | 180 1 Hr |
| Note : * Parameters monitored for period of 1 hr | | | | | | | |

Arshiya Kousar

ARSHIYA KOUSAR
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TEST REPORT

AMBIENT AIR QUALITY

Table No. 4

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| Name and Address of the Industry : M/s. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist , | | | | | | | |
| Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services) | | | | | | | |
| Station at & Code : A4, Near Plant Railway Siding | | | | | | | |
| Instrument Used : Envirotech APM 460BL Serial No. 2216-DTI-2017 Envirotech APM -550, Serial No. 87 DTJ2012 | | | | | | | |
| Calibration due date of instrument : 24.03.2025 | | | | | | | |
| Duration : 24 Hrs | | | | | | | |
| Issue date : 02.09.2024 | | | | | | | |
| Reference IS 5182 & Lab SOP | | | | | | | |

| Date of Sampling | Lab Code | Sulphur Dioxide (SO ₂), µg/m ³ | Nitrogen Dioxide (NO ₂), µg/m ³ | PM ₁₀ , (µg/m ³) | PM _{2.5} , (µg/m ³) | Ammonia (NH ₃), µg/m ³ | Benzene (C ₆ H ₆), µg/m ³ |
|--|-----------------|---|--|---|--|---|---|
| 02.08.2024 | N/24/08/02-0037 | 11 | 12 | 43 | 24 | <20 | <1 |
| 03.08.2024 | N/24/08/02-0052 | 7 | 9 | 38 | 21 | <20 | <1 |
| 09.08.2024 | N/24/08/3-0121 | 11 | 14 | 47 | 23 | <20 | <1 |
| 10.08.2024 | N/24/08/3-0207 | 10 | 12 | 52 | 28 | <20 | <1 |
| 12.08.2024 | N/24/08/4-0019 | 6 | 9 | 44 | 24 | <20 | <1 |
| 13.08.2024 | N/24/08/4-0072 | 11 | 12 | 55 | 30 | <20 | <1 |
| 23.08.2024 | N/24/08/4-0411 | 9 | 11 | 49 | 26 | <20 | <1 |
| 24.08.2024 | N/24/08/5-0034 | 10 | 13 | 50 | 28 | <20 | <1 |
| 26.08.2024 | N/24/08/5-0094 | 7 | 9 | 38 | 21 | <20 | <1 |
| 27.08.2024 | N/24/08/5-0146 | 10 | 13 | 55 | 27 | <20 | <1 |
| Limits for Industrial , Residential, Rural and other Areas | | 80 24 Hrs | 80 24 Hrs | 100 24 Hrs | 60 24 Hrs | 400 24 Hrs | 5 Annual |

| Date of Sampling | Lab Code | Lead (Pb), µg/m ³ | Nickel (Ni), ng/m ³ | Arsenic (As), ng/m ³ | Benzo(a) Pyrene (BaP), ng/m ³ | Carbon Monoxide* (CO), mg/m ³ | Ozone* (O ₃), µg/m ³ |
|--|-----------------|------------------------------|--------------------------------|---------------------------------|--|--|---|
| 02.08.2024 | N/24/08/02-0037 | 0.13 | <0.1 | <0.5 | <0.5 | 0.30 | 22 |
| 03.08.2024 | N/24/08/02-0052 | 0.15 | <0.1 | <0.5 | <0.5 | 0.34 | 27 |
| 09.08.2024 | N/24/08/3-0121 | 0.22 | <0.1 | <0.5 | <0.5 | 0.42 | 26 |
| 10.08.2024 | N/24/08/3-0207 | 0.18 | <0.1 | <0.5 | <0.5 | 0.23 | 22 |
| 23.08.2024 | N/24/08/4-0411 | 0.19 | <0.1 | <0.5 | <0.5 | 0.42 | 23 |
| 10.08.2024 | N/24/08/3-0207 | 0.18 | <0.1 | <0.5 | <0.5 | 0.23 | 22 |
| 23.08.2024 | N/24/08/4-0411 | 0.19 | <0.1 | <0.5 | <0.5 | 0.42 | 23 |
| 24.08.2024 | N/24/08/5-0034 | 0.11 | <0.1 | <0.5 | <0.5 | 0.35 | 28 |
| 26.08.2024 | N/24/08/5-0094 | 0.21 | <0.1 | <0.5 | <0.5 | 0.39 | 24 |
| 27.08.2024 | N/24/08/5-0146 | 0.25 | <0.1 | <0.5 | <0.5 | 0.46 | 25 |
| Limits for Industrial , Residential, Rural and other Areas | | 1.0 24 Hrs | 20 Annual | 6 Annual | 1 Annual | 4 1 Hr | 180 1 Hr |

Note : * Parameters monitored for period of 1 hr

Aushika Kousar

ARSHIYA KOUSAR
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Govt. Analyst / Authorised Signatory

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TEST REPORT

Table No. 5

Stack Monitoring Report

Report No. N041224084

| | |
|---|---|
| Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd. (Metal & Ferro Alloys Plant), Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist , | |
| Location | : ARC Furnace area |
| Stack ID | : Stack Attached to Furnace - 3 |
| Sample Collected by | : Environmental Laboratory (Unit of Mineral Engineering Services) |
| Particulars of Sample Collected | : Emissions from stack collected through stack sample VSS1 |
| Date of Collection | : 23.08.2024 |
| Date of Sample Receipt | : 24.08.2024 |
| Lab Code | : N/24/08/4-0412 |
| Issue date | : 02.09.2024 |

STACK DETAILS

| | | |
|----|---|--|
| 1 | Fuel Used | - |
| 2 | Ambient Temperature ($^{\circ}$ C) | 30 |
| 3 | Stack Temperature ($^{\circ}$ C) | 125 |
| 4 | Velocity (m/s) | 7.97 |
| 5 | Stack Height (M) | 35 |
| 6 | Stack Diameter (M) | 2.5 |
| 7 | Cross Sectional Area in meter square (m^2) | 95733 |
| 8 | Quantity of flue Gas Discharged into atmosphere (Nm^3/hr) | 9587 |
| 9 | Sample Condition When Received | Satisfactory |
| 10 | Model of the Equipment used for Monitoring | Vayubodhan Stack Sampler VSS1 |
| 11 | Serial No. of the Equipment | 338 DTH 14 |
| 12 | Calibration done on and due on | Done on 19.11.2022 and Due on 18.11.2024 |

Pollutional Parameters (Result)

| Sl.No | Parameters | Unit | Results | Tolerance Limits Ref - G.S.R. 227(E) dated 31.03.2012 | Test Method |
|-------|-----------------------------|------------|---------|---|------------------------|
| 1 | Particulate Matter | mg/ Nm^3 | 23.55 | 150 | IS: 11255(Part-1) 2014 |
| 2 | Sulphur Dioxide (SO_2), | mg/ Nm^3 | 17.33 | -- | IS: 11255(Part-2) 2014 |
| 3 | Nitrogen Dioxide (NO_2) | mg/ Nm^3 | 20.50 | -- | IS: 11255(Part-7) 2017 |
| 4 | CO | % | 0.25 | -- | flue gas analyser |
| 5 | Oxygen (O_2) | % | 12.55 | -- | flue gas analyser |

Arshiya Kousar

ARSHIYA KOUSAR
Dy. T.M. - Chemical

Govt. Analyst / Authorised Signatory

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TEST REPORT

Table No. 6

Stack Monitoring Report

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant),
Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,

Location : Coke Oven Plant

Stack ID : Stack Attached to WHRB -01

Remarks - Shutdown

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant),
Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,

Location : Coke Oven Plant

Stack ID : Stack Attached to WHRB -02

Remarks - Shutdown

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant),
Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,

Location : Coke Oven Plant

Stack ID : Stack Attached to Coal Crushing

Remarks - Shutdown

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant),
Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,

Location : Coke Oven Plant

Stack ID : Stack Attached to Coke Cutter

Remarks - Shutdown

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant),
Vyasanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,

Location : Coke Oven Plant

Stack ID : Stack Attached to Coke Screening & Store

Remarks - Shutdown

Arshiya Kousar
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TEST REPORT

Table No.7

AMBIENT NOISE LEVEL DATA

Report No. ELMES0132408

Name and Address of the Industry : Ms. The Sandur Manganese & Iron Ores Ltd.
(Metal & Ferro Alloys Plant),
Vysanakere, Hanumanahalli Village, Hospet Taluk, Ballari Dist ,

Particulars of Sample Collected : Ambient Noise Level collected through Sound Level Meter (HTC SL-1352 Data Logger)

Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services)

Date of sample collection : 24.08.2024

Date of sample receipt : 26.08.2024

Issue Date : 02.09.2024

Sampling & Test Method : IS:9989

| Code No. | Monitoring stations | Day | | | Night | | |
|--------------------|---|------------------------|-----------------|------------------|------------------------|-----------------|------------------|
| | | (06.00 Am to 10.00 Pm) | | | (10.00 Pm to 06.00 Am) | | |
| | | L _{min} | L _{eq} | L _{max} | L _{min} | L _{eq} | L _{max} |
| Core zone | | | | | | | |
| N1 | Near Existing AAQMS 01 (SMIORE Schools) | 43.0 | 49.1 | 55.0 | 33.0 | 41.8 | 47.0 |
| N2 | Existing Water Reservoir (Near WTP Plant) | 38.0 | 46.4 | 53.0 | 34.0 | 43.5 | 48.0 |
| Buffer zone | | | | | | | |
| N3 | Galemmanagudi | 36.0 | 46.8 | 53.3 | 33.0 | 39.9 | 44.3 |
| N4 | Vysanakere Village | 37.0 | 46.0 | 51.2 | 34.0 | 44.3 | 46.0 |
| N5 | Hanumanhalli | 38.0 | 49.3 | 56.0 | 34.0 | 39.3 | 44.8 |

Permissible Limits of Ambient Noise Levels as per CPCB Guidelines

Leq. Limit dB(A)

| | Day | Night |
|------------------|-----|-------|
| Industrial areas | 75 | 70 |
| Commercial area | 65 | 55 |
| Residential area | 55 | 45 |

Arshiya Kousar
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TEST REPORT

Table No.8

| | |
|---------------------------------|--|
| Name of the Client | : M/s. Sandur Manganese & Iron Ores Limited |
| Name of the Project | : Iron & Steel Plant at Vysanakere village, Hosapete Taluk, Ballari District, Karnataka |
| Sample Collected by | : Environmental Laboratory (Unit of Mineral Engineering Services) |
| Particulars of sample collected | : SW1 - Tungabhadra Dam water SW2 - Plant Reservoir |
| Date of sample collection | : 23.08.2024 |
| Date of sample receipt | : 24.08.2024 |
| Issue Date | : 30.08.2024 |
| Ref:IS | : 2296, 1982 Class C Norms (Stream Water Standards) |

| Sl No. | Lab Code | N/24/08/4-0266 | N/24/08/4-0267 | Limits For Stream Water Standards | Method of Testing |
|--------|--|----------------|----------------|-----------------------------------|------------------------------|
| | Samples Code | SW1 | SW2 | | |
| | Parameters | Results | | | |
| 1 | Colour (Hazen Units), Max | 3 | 2 | 300 | IS:3025(Part-4)2021 |
| 2 | pH | 7.92 | 8.26 | 6.5 to 8.5 | IS:3025(Part-11)2022 |
| 3 | Dissolved Oxygen (as O ₂), mg/l, Max | 5.7 | 5.4 | Min 4 | IS:3025(Part-38)1989RA 2019 |
| 4 | Oil & Grease, mg/l | <0.1 | <0.1 | 0.1 | IS:3025(Part 39)2021 |
| 5 | Total Dissolved Solids (mg/l), Max | 152 | 640 | 1500 | IS:3025(Part-16)2023 |
| 6 | Nitrates (as NO ₃),mg/l, Max | 2.80 | 8.21 | 50 | IS:3025(Part-34)1988 RA 2019 |
| 7 | Anionic detergents (as MBAS),mg/l, Max | <0.1 | <0.1 | 1.0 | IS:3025(Part-68) |
| 8 | Copper (as Cu),mg/l, Max | <0.005 | <0.005 | 1.5 | IS:3025(Part-2) 2019 |
| 9 | Chloride (as Cl),mg/l, Max | 15 | 36 | 600 | IS:3025(Part-32) ;1988RA2019 |
| 10 | Fluoride (as F),mg/l, Max | 0.5 | 0.62 | 1.5 | APHA 23rd Edition 4500F |
| 11 | Iron (as Fe),mg/l, Max | 0.042 | 0.033 | 50 | IS:3025(P-2) 2019 |
| 12 | Phenolic compounds (as C ₆ H ₅ OH),mg/l, Max | <0.001 | <0.001 | 0.005 | IS:3025(P-43)Sec 1 2022 |
| 13 | Selenium (as Se), mg/l, Max | <0.005 | <0.005 | 0.05 | IS:3025(P-2) 2019 |
| 14 | Sulphates as SO ₄ (mg/l), Max | 18.2 | 61.8 | 400 | IS:3025(P-24)Sec 1 2022 |
| 15 | Zinc (as Zn),mg/l, Max | <0.005 | <0.005 | 15 | IS:3025(P-2) 2019 |
| 16 | Cadmium (as Cd), mg/l, Max | <0.001 | <0.001 | 0.01 | IS:3025(P-2) 2019 |
| 17 | Cyanides (as CN), mg/l, Max | <0.01 | <0.01 | 0.05 | IS:3025(P-27) Sec 1 2021 |
| 18 | Lead (as Pb) mg/l, Max | <0.005 | <0.005 | 0.1 | IS:3025(P-2) 2019 |
| 19 | Total Arsenic as As (mg/l), Max | <0.002 | <0.002 | 0.2 | IS:3025(P-2) 2019 |
| 20 | Hexavalent Chromium (as Cr ⁺⁶), mg/l, Max | <0.03 | <0.03 | 0.05 | IS:3025(P-52) 2014 |
| 21 | Biochemical Oxygen Demand (as O ₂), mg/l | <3.0 | <3.0 | 3 | IS:3025(P-44) 2014 |
| 22 | Total Coliform (mpn/100ml) | 62 | 80 | 5000 | IS:1622:1981 |

""ND OF REPORT ""

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TEST REPORT

Report No : N026924084

| | |
|---|---|
| Name of the Client | : M/s. Sandur Manganese & Iron Ores Limited |
| Name of the Project | : Iron & Steel Plant at Vyasanakere village, Hosapete Taluk, Ballari District, Karnataka |
| Particulars of sample collected | : 50 KLD STP Water |
| Date of sample collection | : 23.08.2024 |
| Lab Code | : N/24/08/4-0269 |
| Issue Date | : 30.08.2024 |
| Ref : Discharge Standards for Treated Sewage Utilized for Landscape/Irrigation/Secondary Purposes | |

| Sl. No. | Parameters | units | Results | Tolerance Limit | Method of Testing |
|---------|--|-----------|---------|-----------------|-----------------------------|
| 1 | pH | - | 8.10 | 6.5 - 9.0 | IS 3025 (P-11)2017 |
| 2 | Biochemical Oxygen Demand BOD ₅ 27 ^o C | mg/l | 4 | <10 | IS 3025 (P-44) 1993 RA 2019 |
| 3 | Chemical Oxygen Demand (COD) | mg/l | 16 | <50 | IS 3025 (P-58) 2006 RA 2017 |
| 4 | Total Suspended Solids, at 105 ^o C | mg/l | 12 | <20 | IS 3025 (P-16)1984 RA 2017 |
| 5 | Ammonium (H4-N) | mg/l | 0.8 | <5 | IS:3025 (P-34) 2023 |
| 6 | Total Nitrogen (N-Total) | mg/l | 2.5 | <10 | IS 3025 (Part-34) |
| 7 | Fecal coliform | MPN/100ml | <1.8 | <100 | IS:15185 :2016 RA 2021 |

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