

**Permit Reference:** BS 3905IP  
**Operator:** Tata Steel UK  
**Installation:** Llanwern SteelWorks

Form A1/1

| Reporting of Emissions to Air for the period from 01/07/2022 to 30/09/2022 |                       |                      |                 |                                                    |                       |                               |                          |
|----------------------------------------------------------------------------|-----------------------|----------------------|-----------------|----------------------------------------------------|-----------------------|-------------------------------|--------------------------|
| Emission Point                                                             | Substance / Parameter | Emission Limit Value | Result (mg/Nm3) | Test Method                                        | Sample Date and Times | Accreditation / Certification | Uncertainty (+/- mg/Nm3) |
| A1<br>SRF No1                                                              | NOx (as NO2)          | 400 mg/m3            | Nil*            | Electrochemical Cell -<br>BSEN15058 &<br>BSEN14792 | ---                   | Level 2 Mcerts                | ---                      |
|                                                                            | CO                    | None                 | Nil*            |                                                    | ---                   |                               | ---                      |
| A2<br>SRF No2                                                              | NOx (as NO2)          | 400 mg/m3            | Nil*            |                                                    | ---                   |                               | ---                      |
|                                                                            | CO                    | None                 | Nil*            |                                                    | ---                   |                               | ---                      |
| A3<br>SRF No3                                                              | NOx (as NO2)          | 400 mg/m3            | Nil*            |                                                    | ---                   |                               | ---                      |
|                                                                            | CO                    | None                 | Nil*            |                                                    | ---                   |                               | ---                      |
| A4<br>SRF No4                                                              | NOx (as NO2)          | 400 mg/m3            | Nil*            |                                                    | ---                   |                               | ---                      |
|                                                                            | CO                    | None                 | Nil*            |                                                    | ---                   |                               | ---                      |
| A5<br>SRF No5                                                              | NOx (as NO2)          | 400 mg/m3            | Nil*            |                                                    | ---                   |                               | ---                      |
|                                                                            | CO                    | None                 | Nil*            |                                                    | ---                   |                               | ---                      |
| None                                                                       | Gas oil sulphur       | 0.2 w/w              | Nil*            | ---                                                | ---                   | ---                           | ---                      |

\*- Emission points not in use during mothball of Hot Mill

Signed: C. Hughes

Date: 26/10/2022

(authorised to sign as a representative of the operator)

Form A1/2

| Reporting of Emissions to Air for the period from 01/07/2022 to 30/09/2022 |                       |              |                      |                 |                                                    |                           |                          |
|----------------------------------------------------------------------------|-----------------------|--------------|----------------------|-----------------|----------------------------------------------------|---------------------------|--------------------------|
| Emission Point                                                             | Substance / Parameter |              | Emission Limit Value | Result (mg/Nm3) | Test Method                                        | Sample Date and Times     | Uncertainty (+/- mg/Nm3) |
| A11<br><br>Zodiac Furnace                                                  | NOx (as NO2)          |              | 350 mg/m3            | 140.4           | Electrochemical Cell -<br>BSEN15058 &<br>BSEN14792 | 25.08.2022<br>12:55-13:11 | 7.5                      |
|                                                                            | CO                    |              | None                 | 10.1            |                                                    |                           | 0.3                      |
| A14<br><br>Boiler No1                                                      | Gas Oil               | NOx (as NO2) | 200 mg/m3            | Nil**           |                                                    | ---                       | ---                      |
|                                                                            |                       | CO           | None                 | Nil**           |                                                    |                           | ---                      |
|                                                                            | Natural Gas           | NOx (as NO2) | 140 mg/m3            | 107.5           |                                                    | 25.08.2022<br>11:06-11:30 | 5.8                      |
|                                                                            |                       | CO           | None                 | 0.1             |                                                    |                           | 0.2                      |
| A15<br><br>Boiler No2                                                      | Gas Oil               | NOx (as NO2) | 200 mg/m3            | Nil**           |                                                    | ---                       | ---                      |
|                                                                            |                       | CO           | None                 | Nil**           |                                                    |                           | ---                      |
|                                                                            | Natural Gas           | NOx (as NO2) | 140 mg/m3            | 102.3           |                                                    | 25/08/2022<br>11:41-11:57 | 5.5                      |
|                                                                            |                       | CO           | None                 | 0               |                                                    |                           | 0.2                      |
| A16<br><br>Boiler No3                                                      | Gas Oil               | NOx (as NO2) | 200 mg/m3            | Nil**           |                                                    | ---                       | ---                      |
|                                                                            |                       | CO           | None                 | Nil**           |                                                    |                           | ---                      |
|                                                                            | Natural Gas           | NOx (as NO2) | 140 mg/m3            | 109.1           |                                                    | 25/08/2022<br>10:39-10:54 | 5.9                      |
|                                                                            |                       | CO           | None                 | 0.1             |                                                    |                           | 0.3                      |

\*\* - Gas Oil not in use

Signed: *C. Hughes*

Date: 26/10/2022

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**Permit Reference:** BS 3905IP  
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Form A1/3

| Reporting of Emissions to Air for the period from 01/07/2022 to 30/09/2022 |                       |                      |                 |             |                           |                               |                          |
|----------------------------------------------------------------------------|-----------------------|----------------------|-----------------|-------------|---------------------------|-------------------------------|--------------------------|
| Emission Point                                                             | Substance / Parameter | Emission Limit Value | Result (mg/Nm3) | Test Method | Sample Date and Times     | Accreditation / Certification | Uncertainty (+/- mg/Nm3) |
| A6<br>Pickle Line No1                                                      | HCl                   | 10 mg/m3             | Nil*            | BS EN 1911  | ---                       | Level 2 Mcerts                | ---                      |
| A7<br>Pickle Line No2                                                      | HCl                   | 10 mg/m3             | 0.29            |             | 24/08/2022<br>11:17-13:07 |                               | 0.15                     |
| A8<br>Pickle Line Roof Vent                                                | HCl                   | 5 mg/m3              | Nil*            |             |                           |                               |                          |
| A9<br>Cold Mill Oil Mist Vent                                              | Oil mist              | 15 mg/m3             | Nil**           |             |                           |                               |                          |
| A10<br>Zodiac Pre-Cleaner                                                  | Particulate matter    | 5 mg/m3              | Nil****         | BS EN 13284 | ---                       | Level 2 Mcerts                | --                       |
| A12<br>Zodiac Chromate                                                     | Particulate matter    | 5 mg/m3              | Nil*            |             | ---                       |                               | --                       |
| A13<br>Welder Stack                                                        | Particulate matter    | 5 mg/m3              | Nil***          |             | ---                       |                               | ---                      |
| A17<br>Pickle Line Scalemaster                                             | Particulate matter    | 5 mg/m3              | Nil***          |             | ---                       |                               | ---                      |

\*Non operational

\*\*Not measurable

\*\*\*Due to be completed as part of Annual suite of analysis

\*\*\*\*Completed in Q2

Signed: C. Hughes

Date: 26/10/2022

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**Permit Reference:** BS 3905IP  
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Form W1

| Reporting of Emissions to Water for the period from 01/07/2022 to 30/09/2022 |                                         |             |              |
|------------------------------------------------------------------------------|-----------------------------------------|-------------|--------------|
| Parameter                                                                    | Limit                                   | Daily Max * | Daily Mean * |
| Flow Rate                                                                    | 28000 m <sup>3</sup> /day (dry weather) | 10000       | 3956         |
| pH min                                                                       | 6                                       | 7.3         | 10.3         |
| pH max                                                                       | 12                                      | 12.1        |              |
| Total Hydrocarbon Oil                                                        | 5 mg/l                                  | 8.05        | 2.05         |
| Suspended solids                                                             | 100 mg/l                                | 94          | 40.6         |
| Dissolved iron                                                               | 10 mg/l                                 | 1.07        | 0.51         |
| Total chromium                                                               | 0.2 mg/l                                | 0.008       | 0.003        |
| Dissolved nickel                                                             | 0.2 mg/l                                | 0.015       | 0.008        |
| Zinc                                                                         | 2 mg/l                                  | 0.100       | 0.03         |
| Copper                                                                       | 0.1 mg/l                                | 0.028       | 0.007        |
| Lead                                                                         | 0.8 mg/l                                | 0.002       | 0.001        |
| Cadmium                                                                      | 0.05 mg/l                               | 0.0001      | 0.0001       |
| Mercury                                                                      | 0.05 mg/l                               | 0.0002      | 0.0001       |
| Ammoniacal Nitrogen                                                          | None                                    | 4.4         | 1.25         |

\* Includes wet flow conditions

Signed: *C. Hughes*

Date: 26/10/2022

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