

RELEASES TO AIR

Operational summary for quarter ending 30-Jun-19

Operator: Tata Steel UK Ltd

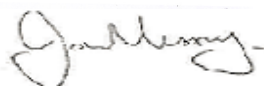
Location: Port Talbot Works

Permit: BL7108 / BL7108IM (V009)

Operational parameters: Raw materials - Gas production and usage

Release point	Month	Gas flared (GJ)	Gas vented (GJ)	Gas produced (GJ)
A12A BOS convertor 1 gas flare	Month 1	56763		
	Month 2	61211		
	Month 3	102638		
A13A BOS convertor 2 gas flare	Month 1	113526		
	Month 2	122422		
	Month 3	205277		
A33 Blast furnace gas flare stack no.1	Month 1	49345		
	Month 2	44828		
	Month 3	90094		
A33C Blast furnace gas flare stack no.2	Month 1	68892		
	Month 2	58473		
	Month 3	94256		
A33A Blast furnace gas main number 4 bleeder	Month 1		6	
	Month 2		1913	
	Month 3		4	
A33B Blast furnace gas main number 5 bleeder	Month 1		78	
	Month 2		23078	
	Month 3		26	
A59 Coke oven gas triple flare	Month 1	6042		
	Month 2	26326		
	Month 3	73190		
Blast furnaces 4 and 5	Month 1			1102315
	Month 2			1719928
				1154366
Coke ovens	Month 1			393926
	Month 2			540610
	Month 3			362357
BOS Plant	Month 1			143863
	Month 2			236940
	Month 3			149699

Signed on behalf of the Operator

..... 

Dated

25/02/20

.....

Form Installation gas

RELEASES INTO AIR

Operational summary for quarter ending

30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

Release Points: A50, A51, A52A, A52B, A53 & A62

Operating details	BOILERS						
	A50A Service 4	A50B Service 5	A51 A5	A52A No.6	A52B No.7	A53 Mitchell	A62 No.3
Operating time (hours)	2163	2177	2168	2160	2130	2162	1281
Mean load (%MCR)	52.18%	58.48%	44.38%	93.34%	88.79%	75.40%	77.14%
Mean flue gas flow (Nm ³ /hr)	82190	107747	50269	230301	249826	136856	119033
Heavy Fuel Oil							
Average net CV (GJ/t)	41	41	41	41	41	41	
Max. sulphur content (g/Kg)	10	10	10	10	10	10	
Max. asphaltene content (g/Kg)	?	?	?	?	?	?	
Ave.%wt Sulphur	1	1	1	1	1	1	
NOx factor	0.1	0.1	0.1	0.1	0.1	0.1	
Coke Oven Gas							
Average net CV (GJ/km ³)	17.31	17.31	17.31	17.31	17.31	17.31	
Sulphur content (g/m ³)	3.49	3.49	3.49	3.49	3.49	3.49	
NOx factor	0.04	0.04	0.04	0.04	0.04	0.04	
Blast Furnace Gas							
Average net CV (GJ/km ³)	3.63	3.63	3.63	3.63	3.63	3.63	3.63
Sulphur content (g/Nm ³)	0.024	0.024	0.024	0.024	0.024	0.024	0.024
NOx factor	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Natural Gas							
Average net CV (GJ/km ³)	37.4	37.4	37.4	37.4	37.4	37.4	37.4
NOx factor	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Dated

25/02/20

Form LCPD Operating 1

RELEASES INTO AIR

Operational summary for quarter ending

30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

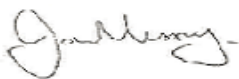
Release Points: A50A/A50B, A51, A52A, A52B, A53 & A62

OXIDES OF NITROGEN - NO _x (DISCONTINUOUS MONITORING)						
Release Point	A50A&B Service 4&5	A51 A5	A52A No.6	A52B No.7	A53 Mitchell	A62 No.3
Time and date of sampling	27-Mar-19 14:33	15-Apr-19 10:39			21-Jun-19 09:55	
Flowrate (Nm ³ /hr)	9074	9716			32023	
NO _x measured** conc. (mg/Nm ³)	203 (+/-11.9)	60 (+/-3.0)			26 (+/-1.6)	
NO _x limit (mg/NM ³)	300 BFG/COG	300 BFG/COG			300 BFG/COG	
Sampling method used	ISO 10849	ISO 10849			ISO 10849	
Analytical method used	EC*	EC*			EC*	
Continuous hourly monitoring result over the period	0					
Fuel usages over the sampling period						
Natural gas (%)	0%	4%			0%	
BF gas (%)	61%	86%			97%	
Coke oven gas (%)	39%	14%			3%	
Heavy fuel oil (%)	0%	0%			0%	

A52A, A52B and A62 (Boiler 3) have an annual monitoring requirement. A50A/A50B has a six monthly monitoring requirement. CEMS subject to QAL2 in 2013

* EC - electrochemical cell

Signed on behalf of the Operator



Dated 25/02/20

Form LCPD DCM NO_x

RELEASES INTO AIR

Operational summary for quarter ending

30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

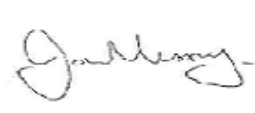
Permit: BL7108 / NP3938GZ

Release Points: A50A/A50B, A51, A52A, A52B, A53 & A62

SULPHUR DIOXIDE - SO ₂ (DISCONTINUOUS MONITORING)						
Release Point	A50A&B Service 4&5	A51 A5	A52A No.6	A52B No.7	A53 Mitchell	A62 No.3
Time and date of sampling	27-Mar-19 14:33	15-Apr-19 10:39			21-Jun-19 09:55	
Flowrate (Nm ³ /hr)	9074	9716			32023	
SO ₂ measured conc. (mg/Nm ³)	435 (+/-25.4)	132 (+/- 6.4)			4 (+/- 2.6)	
SO ₂ limit (mg/NM ³)	800 BFG/COG	800 BFG/COG			800 BFG/COG	
Sampling method used	BS 6069	BS 6069			BS 6069	
Analytical method used	EC*	EC*			EC*	
Continuous hourly monitoring result over the period	0					
Fuel usages over the sampling period						
Natural gas (%)	0%	4%			0%	
BF gas (%)	61%	86%			97%	
Coke oven gas (%)	39%	14%			3%	
Heavy fuel oil (%)	0%	0%			0%	

A52A, A52B and A62 (Boiler 3) have an annual monitoring requirement. A50A/A50B have a six monthly monitoring requirement. CEMS subject to QAL2 in 2013

* EC - electrochemical cell

Signed on behalf of the Operator 

Dated 25/02/20

Form LCPD DCM SO₂

RELEASES INTO AIR

Operational summary for the six months to

30-Jun-18

Operator: Tata Steel UK Ltd

Release Point: A1

Location: Port Talbot Works

Permit: BL7108

Release Point	Sinter Main (A1)							
	Chloride (mg/Nm3)	Fluoride (mg/Nm3)	Lead (mg/Nm3)	VOC's (mg/Nm3)	PAH's * (ug/Nm3)	Dioxins** (ng/Nm3)	Dioxins *** (ng/Nm3)	Mercury (ug/Nm3)
Permit limit						0.4		50
Measured conc. according to condition 10.1.3b	No longer a requirement in the permit				98.0	0.77	0.80	11.9
Measured oxygen (%)					21.7	(+/- 0.13)	(+/- 0.13)	(+/-5.61)
Measured conc. according to condition 10.1.3a (17%O2)					17.0	17.0	17.0	17.0
Cogeners<LoD at zero					98.0	0.8	0.8	11.9
Cogeners<LoD at LoD						0.77	0.80	
Analytical method used						0.77	0.80	
Date of sampling					BS ISO 11338	BS EN 1948	BS EN 1948	BS EN 13211
Sample start time					27-Mar-18	27-Mar-18	27-Mar-18	28-Mar-18
Sample end time					11:46	11:45	11:45	09:34
Limit of detection					13:46	17:02	17:02	11:54
Continuous particulate result during sampling (hourly mean)					0.6	0.001	0.001	0.090
Process status at time of sam					68	68	68	45
Mean sulphur content of sinter blend in use (%)								
Reverts content of sinter blend in use (%)					0.026	0.026	0.026	0.026
Mean chloride content of sinter blend in use (%)					11.5	11.5	11.5	11.5
Throughput during sampling period (% of maximum)					0.018	0.018	0.018	0.02
					65	65	65	66

* PAH's as B[a]P

** Dioxins and furans as iTEQ

*** Dioxins and furans as WHO TEQ

Nb: Dioxins and Furans iTEQ ng/m3 Limit on average of all extractive spot sample carried out by the operator during a single calendar year.
Average of all extractive spot samples in 2016 - 0.3875ng/Nm3

Signed on behalf of the Operator

Dated

25/02/2020

Form Sinter DCM 2

RELEASES INTO AIR

Operational summary for the six months

Operator: Tata Steel Strip Products UK

Location: Port Talbot Works

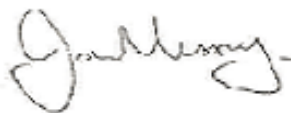
Permit: BL7108 / RP3730BV

Release Points: A39

PARTICULATE MATTER (DISCONTINUOUS MONITORING)		
Release Point	A39 HY1	
Time and date of sampling	23-May-19 13:29	
Flowrate (Nm3/hr)	28379	
Particulate measured conc. (mg/Nm3)	8	
Particulate limit (mg/Nm3)	25	
Sampling method used	BS EN 13284	
Analytical method used	Gravimetric	

Form GCI DCM Part

Signed on behalf of the Operator



Dated 25/02/2020

RELEASES INTO AIR

Operational summary for quarter ending

30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

Release Points: A50A, A50B, A51, A52A, A52B, A53 & A62

Release point	Month	Fuel oil (GJ)	Coke oven gas (GJ)	Blast furnace gas (GJ)	Natural gas (GJ)	BOS gas (GJ)	All fuels (GJ)
A50A Service Boiler 4	A	0	17393	45719	5056		68168
	M	0	26612	52999	2740		82351
	J	0	20608	57427	3042		81077
A50B Service Boiler 5	A	0	33108	45648	4440		83196
	M	0	27501	57102	3646		88248
	J	0	34570	52608	2601		89779
A51 Boiler A5	A	1593	8337	46834	2250	324	59338
	M	0	9153	49826	994	15	59988
	J	0	9145	46594	1522	53	57314
A52A Boiler 6	A	8910	64494	213300	21767	24597	333068
	M	0	70885	257437	10894	39018	378234
	J	0	79415	261617	10538	33141	384710
A52B Boiler 7	A	5314	47041	207106	18225	23686	301372
	M	0	55157	258903	10148	39250	363458
	J	0	61927	259523	8851	32903	363204
A53 Mitchell	A	1135	5950	134795	4079		145959
	M	0	4024	160166	1732		165922
	J	0	6351	154944	2177		163472
A62 Boiler 3	A			148830	10865	1259	160954
	M			155286	5732	59	161077
	J			31530	2048	133	33711
Total	A	16951	176325	842231	66683	49866	1152056
	M	0	193332	991720	35887	78341	1299280
	J						

Signed on behalf of the Operator

Dated 25/02/20

Form LCPD Fuels

RELEASES INTO AIR

Operational summary for quarter ending

30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

Release Points: A50A, A50B, A51, A52A, A52B & A53

PARTICULATE MATTER (mg/Nm3) - CONTINUOUS EMISSIONS MONITORING							
Release point	Month	Monthly mean LIMIT=50	Maximum hourly mean	Date & time of maximum value	Minimum hourly mean	Standard deviation of hourly means	% data capture over month
A50A & A50B Service Boilers 4&5	Apr	2.7	16.6	19/04/19 19:00	0.7	1.8	100%
	May	2.3	18.7	22/05/19 16:00	0.7	1.9	100%
	Jun	2.4	12.5	26/06/19 19:00	0.7	1.5	100%
A51 Boiler A5	Apr	2.9	68.3	26/04/19 12:00	0.3	7.5	100%
	May	2.9	8.9	15/05/19 17:00	0.6	1.8	100%
	Jun	3.9	14.1	27/06/19 20:00	0.6	3.2	100%
A52A Boiler 6	Apr	3.1	33.0	27/04/19 12:00	1.3	4.5	100%
	May	1.9	4.3	24/05/19 19:00	1.5	0.2	100%
	Jun	1.7	4.2	07/06/19 07:00	0.9	0.3	100%
A52B Boiler 7	Apr	3.0	59.4	18/04/19 08:00	0.9	6.5	100%
	May	1.3	4.9	24/05/19 19:00	1.0	0.3	100%
	Jun	2.4	20.8	29/06/19 17:00	0.3	5.2	100%
A53 Mitchell	Apr	5.8	42.0	27/04/19 02:00	2.4	6.5	100%
	May	4.5	5.8	01/05/19 05:00	3.1	0.5	100%
	Jun	4.2	6.8	03/06/19 21:00	2.9	0.5	100%

Signed on behalf of the Operator

Dated25/02/20.....

Form LCPD CEM Parts

RELEASES INTO AIR

Operational summary for quarter ending

30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / BL7108IM (V009)

Release Points: A50, A52A & A52B

OXIDES OF NITROGEN (mg/Nm3) - CONTINUOUS EMISSIONS MONITORING							
Release point	Month	Month mean LIMITS: BFG/COG=300	Maximum hourly mean	Date & time of maximum value	Minimum hourly mean	Standard deviation of hourly means	% data capture over month
A52A Boiler 6	Apr	0.0	0.0	N/A	0.0	0.0	0%
	May	0.0	0.0	N/A	0.0	0.0	0%
	Jun	0.0	0.0	N/A	0.0	0.0	0%
A52B Boiler 7	Apr	285.9	461.4	15/04/2019 23:00	23.0	70.7	100%
	May	253.4	330.9	13/05/2019 16:00	125.8	36.9	100%
	Jun	168.9	330.2	05/06/2019 15:00	23.3	65.7	100%
A50A & A50B Service Boilers	Apr	98.9	124.6	18/04/2019 9:00	86.1	7.0	100%
	May	97.6	122.8	01/05/2019 20:00	86.5	5.0	100%
	Jun	98.7	120.6	26/06/2019 17:00	86.4	5.6	100%
SULPHUR DIOXIDE (mg/Nm3) - CONTINUOUS EMISSIONS MONITORING							
Release point	Month	Month mean LIMITS: BFG/COG=500	Maximum hourly mean	Date & time of maximum value	Minimum hourly mean	Standard deviation of hourly means	% data capture over month
A52A Boiler 6	Apr	0.0	0.0	N/A	0.0	0.0	0%
	May	0.0	0.0	N/A	0.0	0.0	0%
	Jun	0.0	0.0	N/A	0.0	0.0	0%
A52B Boiler 7	Apr	184.2	804.7	18/04/2019 11:00	71.5	135.9	100%
	May	212.9	587.2	01/05/2019 15:00	73.7	66.9	100%
	Jun	276.0	541.6	24/06/2019 16:00	73.8	79.5	100%
A50A & A50B	Apr	322.1	790.9	18/04/2019 3:00	110.0	128.9	100%
	Jun	273.2	750.5	30/06/2019 10:00	108.8	135.4	100%

Signed on behalf of the Operator



Dated 25/02/20

Form LCPD CEMS SO2 & NOx

RELEASES INTO AIR

Operational summary for quarter ending

30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / NP3938GZ

Release Point: A62

PARTICULATE MATTER (mg/Nm3) - CONTINUOUS EMISSIONS MONITORING									
Release point	Month	Maximum daily mean	Monthly mean	Date & time of maximum value	Minimum daily mean	Standard deviation of daily means	% valid monitor response	Fuel weighted monthly limit	% Abnormal conditons
A62 Boiler 3	Apr	4.9	2.6	30-Apr-19	1.3	1.1	100.00%	9.5	8.5%
	May	3.1	2.0	24-May-19	1.3	0.6	100.00%	9.8	3.2%
	Jun	6.3	3.1	27-Jun-19	1.5	2.2	100.00%	5.8	0.1%
SULPHUR DIOXIDE (mg/Nm3) - CONTINUOUS EMISSIONS MONITORING									
Release point	Month	Maximum daily mean	Monthly mean	Date & time of maximum value	Minimum daily mean	Standard deviation of daily means	% valid monitor response	Fuel weighted monthly limit	% Abnormal conditons
A62 Boiler 3	Apr	33.9	28.5	21-Apr-19	25.0	1.9	100.00%	182.5	8.5%
	May	33.2	29.5	13-May-19	26.1	2.0	100.00%	192.6	3.2%
	Jun	31.4	27.6	27-Jun-19	24.3	3.5	100.00%	194.1	0.1%
OXIDES OF NITROGEN (mg/Nm3) - CONTINUOUS EMISSIONS MONITORING									
Release point	Month	Maximum daily mean	Monthly mean	Date & time of maximum value	Minimum daily mean	Standard deviation of daily means	% valid monitor response	Fuel weighted monthly limit	% Abnormal conditons
A62 Boiler 3	Apr	47.3	17.2	30-Apr-19	5.0	9.5	100.00%	189.4	8.5%
	May	42.9	24.1	05-May-19	8.0	9.0	100.00%	195.5	3.2%
	Jun	46.9	21.1	30-Jun-19	5.5	19.7	100.00%	196.4	0.1%

Boiler 3 off from 21 January 2016.

Signed on behalf of the Operator

Dated 25/02/20

Form LCPD CEM A62

Operational summary for quarter ending 30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

Release Points: A50A, A50B, A51, A52A, A52B, A53 & A62

[illegible]

Signed on behalf of the Operator

Dated 25/02/20

Johnny -

Form LCPD CEMS LOG

RELEASES INTO AIR

Operational summary for quarter ending

30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

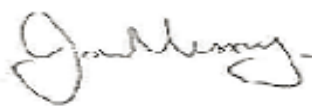
Permit: BL7108 / NP3938GZ

Release Point: A1

Substance	Particulates	Sulphur Dioxide	Oxides of Nitrogen	Carbon Monoxide
Permit limit (mg/Nm3)	40	500	500	
Measured conc. according to condition 10.1.3b	47 (+/- 4.7)	424 (+/-41.0)	147 (+/- 14.3)	6250 (+/- 568.3)
Measured oxygen content (%)	16.7	16.7	16.7	16.7
Measured conc. according to condition 10.1.3a (17%O2)	44	394	137	5804
Sampling method used	BS EN 13284	BS 6069	ISO 10849	BS ISO 12039
Analytical method used	Gravimetric	*EC	*EC	*EC
Date of sampling	01-Apr-19	01-Apr-19	01-Apr-19	01-Apr-19
Sample start time	11:01	11:01	11:01	11:01
Sample end time	00:01	00:01	00:01	00:01
Sample duration (mins)	60	60	60	60
Limit of detection	0.96	1.6	1.4	0.0
Continuous monitor result over the sampling period	34.4			
Process status at the time of sampling				
Mean sulphur content of sinter blend in use (%)	0.029	0.029	0.029	0.029
Reverts content of sinter blend in use (%)	0.1	0.1	0.1	0.1
Mean chloride content of sinter blend in use (%)	0.04	0.04	0.04	0.04
Throughput during sampling	60.0	60.0	60.0	60.0

* EC - electrochemical cell

Signed on behalf of the Operator



Dated

25/02/20

RELEASES INTO AIR

Operational summary for quarter ending

30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / AP3330BE

Release Points: A50A, A50B, A51, A52A, A52B, A53 & A62

Month	Sulphur Dioxide (tonnes)							Oxides of Nitrogen (tonnes)							Particulates (tonnes)									
	A50A	A50B	A51	A52A	A52B	A53	A62	A50A	A50B	A51	A52A	A52B	A53	A62	A50A	A50B	A51	A52A	A52B	A53	A62			
January	15.0	15.0	3.9	32.2	32.2	5.7	0.4	5.6	5.6	1.5	21.4	21.4	3.1	2.8	0.04	0.04	0.03	0.3	0.3	0.1	0.10			
February	6.7	6.7	4.8	27.9	27.9	5.0	1.4	3.6	3.6	1.5	19.0	19.0	3.9	4.0	0.05	0.05	0.04	0.3	0.3	0.1	0.12			
March	10.1	10.1	4.1	28.9	28.9	4.5	2.2	4.3	4.3	1.7	19.0	19.0	4.0	3.1	0.05	0.05	0.04	0.4	0.4	0.2	0.09			
April	12.7	12.7	5.24	18.6	18.6	5.1	2.1	5.8	5.8	1.8	20.3	20.3	3.9	3.3	0.1	0.1	0.05	0.4	0.4	0.2	0.20			
May	13.7	13.7	4.41	22.2	22.2	3.7	2.2	6.6	6.6	1.7	26.0	26.0	4.2	3.2	0.1	0.1	0.07	0.3	0.3	0.3	0.16			
June	13.0	13.0	3.47	37.5	37.5	3.9	0.1	6.5	6.5	1.6	19.3	19.3	4.2	0.8	0.1	0.1	0.09	0.3	0.3	0.2	0.07			
July																								
August																								
September																								
October																								
November																								
December																								
Totals	71	71	26	167	167	28	8	32	32	10	125	125	23	17	0.4	0.4	0.3	1.9	1.9	1.2	0.7			
	539							365							7									
	Service	A5	Margam C	Mit	3			Service	A5	Mgm C	Mit	3			Service	A5	Mgm C	Mit	3					
Boiler Plant Totals	142	26	334		28			8	65	10	250		23			17	1	0.3	4		1			1
NERP Annual Limit (T)	686	251	2219		575				252	96	929		212				20	4	56		10			

Signed on behalf of the Operator

Dated

25/02/20

Form LCPD Monthly 1

RELEASES INTO AIR

Operational summary for quarter ending

30-Jun-19

Operator: Tata Steel UK Ltd**Location:** Port Talbot Works**Permit:** BL7108 / NP3938GZ**Release Points:** A6, A7, A30, A31, A32, A34A, A34B & A39

OXIDES OF NITROGEN - NOx (DISCONTINUOUS MONITORING)								
Release Point	A6	A7	A30	A31	A32	A34A	A34B	A39 #
Time and date of sampling	17-Apr-19 11:24	25-Apr-19 11:03				11-Apr-19 11:26	12-Apr-19 10:04	23-May-19 14:29:00 PM
Flowrate (Nm3/hr)	179027	41254				8089	26074	29349
NOx measured conc.(mg/Nm3) **	79 (+/-2.7)	35 (+/-1.3)				793 (+/- 46.4)	986 (+/-46.9)	13 (+/-0.3)
Oxygen content (%)								
NOx limits (mg/Nm3)	100	100				1800	1800	115
Sampling method used	ISO 10849	ISO 10849				ISO 10849	ISO 10849	ISO 10849
Analytical method used	EC *	EC *				EC *	EC *	EC *
Continuous hourly monitoring result over the period								
Fuel usages over the sampling period								
Natural gas (%)	5%	23%				77%	35%	100%
BF gas (%)	67%	69%						0%
Coke oven gas (%)	8%	8%				23%	65%	
BOS Gas (%)	20%							

* EC - electrochemical cell

A39 has a 6 monthly monitoring requirement.

Signed on behalf of the Operator

Dated 25/02/20

Form I&S DCM NOx

RELEASES INTO AIR

Operational summary for quarter ending

30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / NP3938GZ

Release Points: A6, A7, A34A & A34B

SULPHUR DIOXIDE - SO ₂ (DISCONTINUOUS MONITORING)					
Release Point	A6	A7	A34A	A34B	A39 #
Time and date of sampling	17-Apr-19 11:24	25-Apr-19 11:03	11-Apr-19 11:26	12-Apr-19 10:04	23-May-19 14:29:00 PM
Flowrate (Nm ³ /hr)	179027	41254	8089	26074	29,349
SO ₂ measured conc.(mg/Nm ³)	147.4 (+/- 4.9)	9 (+/- 1.6)	325 (+/-19.2)	567 (+/-27.5)	0 (+/- 0.0)
SO ₂ limits (mg/Nm ³)	200	200	1400	1400	260
Sampling method used	BS6069	BS6069	BS6069	BS6069	BS6069
Analytical method used	EC *	EC *	EC *	EC *	EC *
Continuous hourly monitoring result over the period					
Fuel usages over the sampling period					
Natural gas (%)	5%	23%	77%	35%	100%
BF gas (%)	67%	69%			0%
Coke oven gas (%)	8%	8%	23%	65%	
BOS Gas (%)	20%				

* EC - electrochemical cell

A39 has a 6 monthly monitoring requirement

Signed on behalf of the Operator

Dated

25/02/20

Form I&S DCM SO₂

RELEASES INTO AIR

Operational summary for quarter ending 30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / PP3738SQ

Release Points: A6, A7, A21, A22, A24 & A46

VARIOUS DISCONTINUOUS MONITORING					
Release Point	A21	A6	A7	A39 # (6 Monthly)	
Parameter	Chloride (as HCl)	Carbon monoxide			
Time and date of sampling	29-May-19 11:06	17-Apr-19 11:24	25-Apr-19 11:03	23-May-19 14:29:00 PM	
Flowrate (Nm3/hr)	17,285	179027	41254	28,379	
Measured conc.(mg/Nm3)	0.3 (+/-0.1)	6250	6250	152 (+/-3.2)	
Emission limits (mg/Nm3)	5				
Sampling method used	Isokinetic	BS ISO 12039	BS ISO 12039	BS ISO 12039	
Analytical method used	BSEN1911	EC *	EC *	EC *	
Fuel usages over the sampling period					
Natural gas (%)		5%	23%		
BF gas (%)		67%	69%		
Coke oven gas (%)		8%	8%		
BOS Gas (%)		20%			

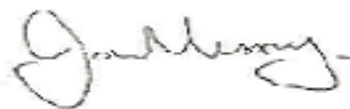
* EC - electrochemical cell

* No limit for A46 in new permit.

A39 has a 6 monthly monitoring requirement - no yet taken for HY2

Signed on behalf of the Operator

Dated 25/02/20



Form I&S DCM Misc

RELEASES INTO AIR

Operational summary for quarter ending 30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

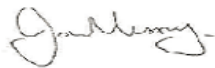
Release Points: A2, A8A, A8B, A9, A10, A14, A15 & A16

PARTICULATE MATTER (mg/Nm3) - CONTINUOUS EMISSIONS MONITORING											
Release point	Month	Limit	Maximum daily mean	Minimum daily mean	Standard deviation of daily means	Maximum hourly mean	Minimum hourly mean	Standard deviation of hour means	Monthly mean	abatement availability %	% data capture over month
A8A	Apr	15	2	0.8	0.2	3.1	0.3	0.3	1.2	100%	100%
	May		2	0.9	0.2	2.8	0.6	0.3	1.3	100%	100%
	Jun		2	0.9	0.2	3.6	0.7	0.3	1.2	100%	100%
A8B	Apr	15	30	4.5	5.1	57.8	1.6	8.2	11.8	100%	100%
	May		34	8.3	7.6	63.5	1.6	11.4	20.9	100%	100%
	Jun		26	5.8	4.4	56.4	1.9	8.5	16.1	100%	100%
A9	Apr	15	6	0.0	1.6	19.0	0.2	3.3	0.6	100%	100%
	May		3	0.0	1.0	10.8	0.1	1.3	0.4	100%	100%
	Jun		5	0.0	1.4	7.7	0.3	1.0	0.5	100%	100%
A2*	Apr	30	56	7.4	11.5	154.2	0.0	18.1	25.4	100%	100%
	May		49	0.0	14.5	122.7	0.0	16.5	20.9	100%	100%
	Jun		49	7.0	8.7	96.3	0.0	13.4	27.9	100%	100%
A10	Apr	15	7	2.4	1.2	11.5	3.9	2.0	4.1	100%	100%
	May		7	2.6	1.0	10.1	4.5	1.5	4.3	100%	100%
	Jun		4	0.2	1.3	7.9	0.3	2.3	2.3	100%	100%
A14	Apr	15	3	1.5	0.5	4.9	0.0	1.4	2.6	100%	100%
	May		7	2.6	1.0	9.2	3.1	1.7	3.9	100%	100%
	Jun		6	3.1	0.7	10.6	4.3	1.6	4.6	100%	100%
A15	Apr	15	7	1.7	1.4	12.9	0.0	3.5	4.7	100%	100%
	May		7	0.3	2.0	11.4	0.4	3.1	1.6	100%	100%
	Jun		13	0.2	3.6	36.6	0.3	8.8	3.5	100%	100%
A16	Apr	15	3	1.1	0.6	6.1	0.0	1.6	2.3	100%	100%
	May		8	2.1	1.3	10.3	2.8	1.9	3.9	100%	100%
	Jun		17	2.0	3.4	27.7	2.7	5.2	6.5	100%	100%

*A2 ELV discussed with NRW as derogation

Signed on behalf of the Operator

Dated 25/02/20



Form I&S CEMS Parts 1 & 2

RELEASES INTO AIR

Operational summary for quarter ending 30-Jun-19

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / RP3730BV / BL7108IM (V009)

Release Points: A10A & A63

PARTICULATE MATTER (mg/Nm3) - CONTINUOUS EMISSIONS MONITORING											
Release point	Month	Limit	Maximum daily mean	Minimum daily mean	Standard deviation of daily means	Maximum hourly mean	Minimum hourly mean	Standard deviation of hour means	Monthly mean	abatement availability %	% data capture over month
A10A	Apr	15	1.0	0.0	1.1	6.9	0.0	0.2	0.7	100%	100%
	May	Daily mean	1.6	0.4	1.0	10.1	0.5	3.5	0.8	100%	100%
	Jun		0.9	0.4	1.3	7.9	0.5	0.2	0.7	100%	100%
A63	Apr	25	Inconsistent data during the period - to be investigated.								
	May	Hourly mean									
	Jun										

Signed on behalf of the Operator

Dated 25/02/20

Form I&S CEMS Part 3

RELEASES INTO AIR

Operational summary for quarter ending

30-Jun-19

Operator: Port Talbot Works

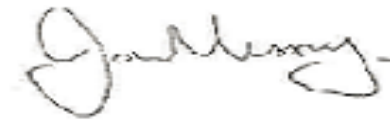
Location: Port Talbot Works

Permit: BL7108 / RP3730BV

	NOx (tonnes)	Lead (tonnes)	PM10 (tonnes)	CO2 (k tonnes)
Morfa	490			
Iron & Steel	847	0.6	410	1602
Total	1336	0.6	410	1602

Signed on behalf of the Operator

Dated 26/02/20



Form KPI

RELEASES INTO AIR

Operational Summary for quarter ending 30-Jun-19

Operator: Tata Steel Strip Products UK

Location: Port Talbot Works

Permit: BL7108

Release Points:

PARTICULATE MATTER (DISCONTINUOUS MONITORING)		
Release Point	A6	A7
Time and date of sampling	17-Apr-19 10:27	24-Apr-19 11:10
Flowrate (Nm3/hr)	179,027	240,963
Particulate measured conc. (mg/Nm3)	5.6 (+/-1.1)	6.1 (+/-0.7)
Particulate limit (mg/Nm3)	10	10
Sampling method used	BS EN 13284	BS EN 13284
Analytical method used	Gravimetric	Gravimetric
Fuel Usage		
Natural gas (%)	5%	23%
BF gas (%)	67%	69%
Coke oven gas (%)	8%	8%
BOS (%)	20%	

Signed on behalf of the Operator



Dated

25/02/2020

Form Blast Furnace DCM Part

RELEASES INTO AIR

Operational Summary for the month Apr-2019

Operator: Tata Steel UK Ltd

Permit: BL7108 / RP3730BV

Location: Port Talbot Works

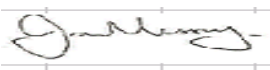
Release Point: A1

Day	% max throughput	% data capture	% EP availability	% UJT availability	Sinter Blend			Particulate Matter (mg/m3)								
								Daily average	4 hour rolling average				Hourly average			
					Mean sulphur % w/w	Mean chloride % w/w	Mean reverts % w/w		Maximum	Mean	Minimum	Standard deviation	Maximum	Mean	Minimum	Standard deviation
01-Apr-19	78	100%	100%	100%	0.029	0.042	8.20%	34	59	34	17	15	71	34	16	18
02-Apr-19	75	100%	100%	92%	0.028	0.02	8.30%	23	42	24	14	8	53	23	11	11
03-Apr-19	78	100%	100%	73%	0.028	0.02	8.30%	35	72	32	12	17	93	35	11	22
04-Apr-19	61	100%	100%	30%	0.028	0.02	8.30%	42	81	43	3	20	106	42	0	29
05-Apr-19	79	100%	100%	71%	0.028	0.02	8.30%	48	89	48	29	19	134	48	23	27
06-Apr-19	70	100%	100%	100%	0.025	0.021	8.20%	60	105	60	31	26	140	60	0	36
07-Apr-19	64	100%	100%	100%	0.025	0.021	8.20%	15	43	18	0	18	58	15	0	20
08-Apr-19	81	100%	100%	100%	0.025	0.021	8.20%	37	67	33	0	26	78	37	0	28
09-Apr-19	83	100%	100%	100%	0.025	0.021	8.20%	84	143	82	43	35	200	84	36	48
10-Apr-19	14	100%	100%	100%	0.025	0.021	8.20%	16	96	22	0	35	114	16	0	34
11-Apr-19	44	100%	100%	92%	0.022	0.024	7.90%	53	161	52	0	41	258	53	0	60
12-Apr-19	74	100%	100%	75%	0.022	0.024	7.90%	17	30	17	11	5	55	17	0	9
13-Apr-19	83	100%	100%	100%	0.022	0.024	7.90%	23	28	22	16	4	38	23	15	7
14-Apr-19	91	100%	100%	100%	0.022	0.024	7.90%	26	33	26	21	3	41	26	19	5
15-Apr-19	81	100%	100%	100%	0.022	0.024	7.90%	43	70	43	23	14	104	43	20	24
16-Apr-19	83	100%	100%	100%	0.025	0.028	9.20%	35	62	35	20	11	84	35	20	15
17-Apr-19	85	100%	100%	100%	0.025	0.028	9.20%	31	40	31	21	6	49	31	20	7
18-Apr-19	37	100%	100%	91%	0.025	0.028	9.20%	15	44	16	0	16	52	15	0	18
19-Apr-19	31	100%	100%	57%	0.025	0.028	9.20%	24	70	20	0	25	165	24	0	39
20-Apr-19	83	100%	100%	100%	0.025	0.028	9.20%	23	51	26	17	8	35	23	15	7
21-Apr-19	80	100%	100%	100%	0.022	0.021	10.20%	30	52	29	17	10	79	30	17	14
22-Apr-19	79	100%	100%	9%	0.022	0.021	10.20%	40	59	38	21	12	74	40	20	14
23-Apr-19	74	100%	100%	100%	0.022	0.021	10.20%	40	80	42	18	21	175	40	15	36
24-Apr-19	81	100%	100%	100%	0.022	0.021	10.20%	35	67	34	17	18	78	35	13	21
25-Apr-19	77	100%	100%	100%	0.021	0.022	10.20%	40	62	41	22	13	94	40	20	18
26-Apr-19	42	100%	100%	100%	0.021	0.022	10.20%	24	51	24	0	17	83	24	0	26
27-Apr-19	37	100%	100%	49%	0.021	0.022	10.20%	15	35	16	0	10	65	15	0	16
28-Apr-19	55	100%	100%	8%	0.021	0.022	10.20%	19	27	19	3	7	70	19	0	14
29-Apr-19	59	100%	100%	56%	0.021	0.022	10.20%	37	81	37	0	22	107	37	0	29
30-Apr-19	77	100%	100%	19%	0.020	0.026	9.80%	32	44	32	24	7	61	32	23	11
Month ave	68	100%	100%	81%	0.02	0.02	0.1	33	-	33	-	-	-	33	-	-
Month max.	91	-	-	-	0.03	0.02	0.1	84	161	-	-	-	258	-	-	-
Limit	-	-	-	-	0.06	-	-	40	-	-	-	-	-	-	-	-

* No data available.

03/04/2017 to the 10/04/2017 Sinter Plant on stop

Signed on behalf of the Operator



Dated 26/02/2020

Form Sinter CEMS

RELEASES INTO AIR

Operational Summary for the month Jun-2019

Operator: Tata Steel UK Ltd

Permit: BL7108 / RP3730BV

Location: Port Talbot Works

Release Point: A1

Day	% max throughput	% data capture	% EP availability	% UIT availability	Sinter Blend			Daily average	Particulate Matter (mg/m3)							
					Mean sulphur % w/w	Mean chloride % w/w	Mean reverts % w/w		4 hour rolling average				Hourly average			
									Maximum	Mean	Minimum	Standard deviation	Maximum	Mean	Minimum	Standard deviation
01-Jun-19	80	100%	100%	100%	0.023	0.021	9.10%	46	63	47	30	11	94	46	29	16
02-Jun-19	90	100%	100%	100%	0.023	0.021	9.10%	47	73	44	37	9	107	47	30	17
03-Jun-19	86	100%	100%	87%	0.023	0.021	9.10%	56	91	57	35	15	102	56	31	20
04-Jun-19	86	100%	100%	100%	0.022	0.053	10.00%	52	79	53	34	13	121	52	31	24
05-Jun-19	88	100%	100%	97%	0.022	0.053	10.00%	61	99	58	36	19	143	61	33	28
06-Jun-19	57	100%	100%	91%	0.022	0.053	10.00%	49	116	53	0	30	191	49	0	44
07-Jun-19	80	100%	100%	17%	0.022	0.028	9.10%	14	35	15	0	15	46	14	0	17
08-Jun-19	82	100%	100%	7%	0.022	0.028	9.10%	27	51	25	0	20	59	27	0	21
09-Jun-19	75	100%	100%	64%	0.022	0.028	9.10%	49	83	49	36	15	185	49	24	31
10-Jun-19	79	100%	100%	27%	0.022	0.028	9.10%	40	63	41	27	12	85	40	25	17
11-Jun-19	77	100%	100%	27%	0.017	0.027	9.80%	40	65	40	29	11	88	40	27	15
12-Jun-19	65	100%	100%	27%	0.017	0.027	9.80%	41	60	40	19	11	71	41	0	20
13-Jun-19	66	100%	100%	71%	0.017	0.027	9.80%	31	40	32	23	6	54	31	15	8
14-Jun-19	72	100%	100%	99%	0.017	0.027	9.80%	36	57	35	26	10	76	36	12	14
15-Jun-19	54	100%	100%	100%	0.018	0.03	8.20%	36	59	36	0	18	90	36	0	24
16-Jun-19	76	100%	100%	100%	0.018	0.03	8.20%	34	52	34	28	8	83	34	25	12
17-Jun-19	74	100%	100%	100%	0.018	0.03	8.20%	45	73	45	33	13	163	45	29	27
18-Jun-19	74	100%	100%	100%	0.018	0.03	8.20%	62	122	60	34	27	215	62	32	42
19-Jun-19	14	100%	100%	100%	0.019	0.029	8.80%	19	101	23	0	34	225	19	0	49
20-Jun-19	68	100%	100%	100%	0.019	0.029	8.80%	70	236	68	0	67	293	70	0	82
21-Jun-19	79	100%	100%	99%	0.019	0.029	8.80%	36	56	35	27	9	73	36	24	11
22-Jun-19	81	100%	100%	100%	0.019	0.029	8.80%	44	71	44	33	12	88	44	29	15
23-Jun-19	68	100%	100%	100%	0.019	0.029	8.80%	50	70	49	37	7	103	50	30	18
24-Jun-19	75	100%	100%	98%	0.020	0.027	8.10%	40	62	40	30	9	91	40	27	15
25-Jun-19	79	100%	100%	98%	0.020	0.027	8.10%	40	54	39	30	7	75	40	24	12
26-Jun-19	59	100%	100%	100%	0.020	0.027	8.10%	46	75	44	15	17	125	46	0	30
27-Jun-19	31	100%	100%	38%	0.020	0.027	8.10%	25	68	30	0	24	178	25	0	38
28-Jun-19	66	100%	100%	7%	0.020	0.027	8.10%	46	139	44	0	39	300	46	0	60
29-Jun-19	76	100%	100%	27%	0.021	0.031	8.20%	35	43	34	27	5	62	35	24	10
30-Jun-19	55	100%	100%	28%	0.021	0.031	8.20%	26	39	26	0	11	68	26	0	16
Month ave	70	100%	100%	74%	0.02	0.03	0.1	41	-	41	-	-	-	41	-	-
Month max.	90	-	-	-	0.02	0.05	0.1	70	236	-	-	-	300	-	-	-
Limit	-	-	-	-	0.06	-	-	40	-	-	-	-	-	-	-	-

* No data available.

03/04/2017 to the 10/04/2017 Sinter Plant on stop

Signed on behalf of the Operator

Dated 25/02/2020

Form Sinter CEMS

RELEASES INTO AIR

Operational Summary for the month May-2019

Operator: Tata Steel UK Ltd

Permit: BL7108 / RP3730BV

Location: Port Talbot Works

Release Point: A1

Day	% max throughput	% data capture	% EP availability	% UIT availability	Sinter Blend			Daily average	Particulate Matter (mg/m3)							
					Mean sulphur % w/w	Mean chloride % w/w	Mean reverts % w/w		4 hour rolling average				Hourly average			
									Maximum	Mean	Minimum	Standard deviation	Maximum	Mean	Minimum	Standard deviation
01-May-19	72	100%	100%	3%	0.020	0.026	9.80%	36	57	35	24	8	83	36	11	17
02-May-19	79	100%	100%	71%	0.020	0.026	9.80%	41	65	42	23	13	75	41	22	15
03-May-19	69	100%	100%	100%	0.020	0.026	9.80%	44	91	42	23	19	130	44	0	30
04-May-19	73	100%	100%	100%	0.020	0.026	9.80%	44	90	45	28	19	134	44	0	33
05-May-19	64	100%	100%	100%	0.019	0.028	11.20%	30	65	33	14	14	100	30	1	19
06-May-19	84	100%	100%	100%	0.019	0.028	11.20%	28	42	26	21	5	67	28	21	10
07-May-19	62	100%	100%	100%	0.019	0.028	11.20%	16	54	20	0	21	64	16	0	21
08-May-19	7	100%	100%	100%	0.019	0.028	11.20%	0	0	0	0	0	0	0	0	0
09-May-19	0	100%	100%	100%	0.019	0.028	11.20%	0	0	0	0	0	0	0	0	0
10-May-19	3	100%	100%	100%	0.019	0.028	11.20%	3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	55	3	0	12
11-May-19	51	100%	100%	100%	0.019	0.028	11.20%	46	79	45	27	15	97	46	23	19
12-May-19	59	100%	100%	100%	0.018	0.024	10.90%	33	47	33	19	7	87	33	0	17
13-May-19	69	100%	100%	100%	0.018	0.024	10.90%	32	39	31	27	4	46	32	25	5
14-May-19	64	100%	100%	53%	0.018	0.024	10.90%	46	93	46	33	20	167	46	28	30
15-May-19	66	100%	100%	38%	0.018	0.024	10.90%	47	65	46	32	9	94	47	29	15
16-May-19	66	100%	100%	53%	0.018	0.024	10.90%	78	134	77	38	30	196	78	34	41
17-May-19	55	100%	100%	7%	0.024	0.024	9.60%	70	156	71	28	35	196	70	18	52
18-May-19	64	100%	100%	2%	0.024	0.024	9.60%	47	80	47	35	15	162	47	33	25
19-May-19	65	100%	100%	1%	0.024	0.024	9.60%	52	67	52	40	8	88	52	34	13
20-May-19	2	100%	100%	3%	0.024	0.024	9.60%	3	60	6	0	16	68	3	0	14
21-May-19	0	100%	100%	100%	0.024	0.024	9.60%	0	0	0	0	0	0	0	0	0
22-May-19	0	100%	100%	100%	0.024	0.024	9.60%	0	0	0	0	0	0	0	0	0
23-May-19	1	100%	100%	49%	0.024	0.024	9.60%	0	0	0	0	0	0	0	0	0
24-May-19	8	100%	100%	49%	0.024	0.024	9.60%	15	85	12	0	28	238	15	0	50
25-May-19	75	100%	100%	100%	0.024	0.024	9.60%	20	40	21	11	7	36	20	0	7
26-May-19	79	100%	100%	100%	0.024	0.024	9.60%	37	58	36	21	12	77	37	19	14
27-May-19	84	100%	100%	100%	0.021	0.02	8.60%	29	40	29	21	5	59	29	20	8
28-May-19	78	100%	100%	100%	0.021	0.02	8.60%	32	41	31	26	4	59	32	15	9
29-May-19	75	100%	100%	100%	0.021	0.02	8.60%	31	50	29	22	6	107	31	11	18
30-May-19	84	100%	100%	100%	0.021	0.02	8.60%	32	50	34	24	8	60	32	21	10
31-May-19	79	100%	100%	100%	0.023	0.021	9.10%	32	57	38	29	9	98	38	0	14
Month ave	53	100%	100%	75%	0.02	0.02	0.1	30	-	#DIV/0!	-	-	-	30	-	-
Month max.	84	-	-	-	0.02	0.03	0.1	78	57	-	-	-	238	-	-	-
Limit	-	-	-	-	0.06	-	-	40	-	-	-	-	-	-	-	-

* No data available.

03/04/2017 to the 10/04/2017 Sinter Plant on stop

Signed on behalf of the Operator

Dated 26/02/2020

Form Sinter CEMS