

RELEASES INTO AIR

Operational Summary for the month Apr-2017

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			Particulate Matter (mg/m3)								
					Mean sulphur % w/w	Mean chloride % w/w	Mean reverts % w/w	Daily average	4 hour rolling average				Hourly average			
									Maximum	Mean	Minimum	Standard deviation	Maximum	Mean	Minimum	Standard deviation
01-Apr-17	51	100%	100%	100%	0.053	0.016	15.38%	101	143	101	69	28	198	101	58	35
02-Apr-17	41	100%	100%	100%	0.053	0.016	15.38%	103	130	98	64	16	197	103	3	45
03-Apr-17	Sinter plant on stop during this time															
04-Apr-17																
05-Apr-17																
06-Apr-17																
07-Apr-17																
08-Apr-17																
09-Apr-17																
10-Apr-17																
11-Apr-17	38	100%	100%	100%	0.048	0.016	12.49%	40	72	42	18	16	94	40	0	26
12-Apr-17	54	100%	100%	100%	0.048	0.016	12.49%	59	117	53	11	28	144	59	-3	41
13-Apr-17	57	100%	100%	100%	0.048	0.016	12.49%	59	124	64	29	28	109	59	25	27
14-Apr-17	60	100%	100%	31%	0.048	0.016	12.49%	70	102	70	44	19	111	70	42	23
15-Apr-17	57	100%	100%	84%	0.048	0.016	12.49%	96	152	95	60	25	234	96	56	39
16-Apr-17	48	100%	100%	100%	0.047	0.016	11.75%	74	105	74	42	17	126	74	0	34
17-Apr-17	62	100%	100%	90%	0.047	0.016	11.75%	106	147	106	76	17	209	106	62	35
18-Apr-17	62	100%	100%	51%	0.047	0.016	11.75%	77	97	79	59	13	146	77	28	29
19-Apr-17	64	100%	100%	2%	0.047	0.016	11.75%	77	99	76	56	12	124	77	50	17
20-Apr-17	66	100%	100%	33%	0.047	0.016	11.75%	87	106	87	66	11	165	87	59	27
21-Apr-17	56	100%	100%	60%	0.042	0.016	9.86%	90	144	94	65	22	166	90	8	38
22-Apr-17	65	100%	100%	100%	0.042	0.016	9.86%	98	167	98	36	37	233	98	33	51
23-Apr-17	66	100%	100%	100%	0.042	0.016	9.86%	73	95	71	34	16	142	73	33	27
24-Apr-17	42	100%	100%	100%	0.042	0.016	9.86%	83	137	81	0	39	222	83	0	55
25-Apr-17	59	100%	100%	100%	0.042	0.016	9.86%	81	107	83	55	14	177	81	54	29
26-Apr-17	57	100%	100%	100%	0.041	#N/A	10.09%	69	124	70	46	24	225	69	38	38
27-Apr-17	55	100%	100%	100%	0.041	#N/A	10.09%	62	79	61	34	13	98	62	0	20
28-Apr-17	57	100%	100%	100%	0.041	#N/A	10.09%	82	102	81	61	13	128	82	59	21
29-Apr-17	58	100%	100%	100%	0.041	#N/A	10.09%	76	105	74	58	12	144	76	48	24
30-Apr-17	60	100%	100%	100%	0.041	#N/A	10.09%	84	102	86	73	8	117	84	65	13
Month ave	41	100%	100%	88%	0.05	0.02	0.1	63	-	67	-	-	-	63	-	-
Month max.	66	-	-	-	0.05	#N/A	0.2	106	167	-	-	-	234	-	-	-
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 09/06/2017

Form Sinter CEMS

RELEASES INTO AIR

Operational Summary for the month May-2017

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			Particulate Matter (mg/m3)								
					Mean sulphur % w/w	Mean chloride % w/w	Mean reverts % w/w	Daily average	4 hour rolling average				Hourly average			
									Maximum	Mean	Minimum	Standard deviation	Maximum	Mean	Minimum	Standard deviation
01-May-17	61	100%	100%	100%	0.041	#N/A	10.09%	107	136	105	79	15	175	107	74	27
02-May-17	57	100%	100%	100%	0.041	0.01	9.99%	79	124	84	62	14	116	79	60	16
03-May-17	54	100%	100%	100%	0.041	0.01	9.99%	97	183	100	47	40	237	97	35	53
04-May-17	18	100%	100%	100%	0.041	0.01	9.99%	28	101	30	0	35	238	28	0	51
05-May-17	13	100%	100%	97%	0.041	0.01	9.99%	52	200	45	0	74	269	52	0	88
06-May-17	59	100%	100%	100%	0.041	0.01	9.99%	109	224	112	67	39	284	109	36	59
07-May-17	62	100%	100%	88%	0.041	0.01	9.99%	41	109	46	0	46	138	41	0	52
08-May-17	65	100%	100%	46%	0.044	#N/A	10.41%	51	97	46	0	38	139	51	0	40
09-May-17	65	100%	100%	8%	0.044	#N/A	10.41%	56	72	57	50	5	84	56	42	10
10-May-17	66	100%	100%	0%	0.044	#N/A	10.41%	68	128	66	46	26	199	68	44	37
11-May-17	62	100%	100%	60%	0.044	#N/A	10.41%	60	87	60	46	12	125	60	28	23
12-May-17	56	100%	100%	100%	0.044	#N/A	10.41%	45	79	48	22	15	83	45	1	18
13-May-17	64	100%	100%	100%	0.045	0.012	10.63%	45	63	45	32	11	84	45	25	15
14-May-17	66	100%	100%	100%	0.045	0.012	10.63%	46	92	45	27	20	174	46	23	30
15-May-17	51	100%	100%	100%	0.045	0.012	10.63%	37	61	37	1	14	88	37	0	25
16-May-17	63	100%	100%	100%	0.045	0.012	10.63%	62	102	60	11	26	145	62	10	36
17-May-17	62	100%	100%	100%	0.045	0.012	10.63%	90	125	87	57	19	157	90	47	30
18-May-17	64	100%	100%	100%	0.045	0.014	10.78%	102	185	105	61	37	243	102	32	50
19-May-17	58	100%	100%	100%	0.045	0.014	10.78%	73	86	73	49	8	109	73	34	16
20-May-17	59	100%	100%	92%	0.045	0.014	10.78%	94	111	95	72	12	134	94	58	19
21-May-17	57	100%	100%	93%	0.045	0.014	10.78%	78	105	78	52	16	140	78	35	25
22-May-17	49	100%	100%	Sinter plant on stop during this time				65	90	64	15	20	113	65	0	30
23-May-17	60	100%	100%					82	135	82	56	21	176	82	54	32
24-May-17	10	100%	100%					15	71	19	0	29	81	15	0	29
25-May-17	51	100%	100%					96	136	93	32	29	189	96	41	43
26-May-17	53	100%	100%					87	133	83	45	30	146	87	38	33
27-May-17	63	100%	100%					77	103	76	57	14	133	77	53	22
28-May-17	62	100%	100%					81	114	83	63	15	177	81	48	27
29-May-17	64	100%	100%					91	106	90	70	11	127	91	64	17
30-May-17	66	100%	100%					99	128	98	78	16	164	99	69	24
31-May-17	64	100%	100%					100	142	109	73	23	192	108	66	29
Month ave	56	100%	100%	87%	0.04	#N/A	0.1	71	-	72	-	-	-	72	-	-
Month max.	66	-	-	-	0.05	#N/A	0.1	109	224	-	-	-	284	-	-	-
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 20/07/2017

Form Sinter CEMS

Operational Summary for the month Jun-2017

Permit: BL7108 / RP3730BV

Release Point: A1

* No data available.

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

Dated 27/07/2017

Form Sinter CEMS

RELEASES TO AIR

Operational summary for quarter ending 31/06/2017

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	18051		
	Month 2	21483		
	Month 3	39135		
A13A BOS convertor 2 gas flare	Month 1	36102		
	Month 2	42965		
	Month 3	78270		
A33 Blast furnace gas flare stack no.1	Month 1	31220		
	Month 2	23653		
	Month 3	17910		
A33C Blast furnace gas flare stack no.2	Month 1	57951		
	Month 2	70686		
	Month 3	63930		
A33A Blast furnace gas main number 4 bleeder	Month 1		107	
	Month 2		58	
	Month 3		37	
A33B Blast furnace gas main number 5 bleeder	Month 1		352	
	Month 2		411	
	Month 3		438	
A59 Coke oven gas triple flare	Month 1	56603		
	Month 2	33823		
	Month 3	10220		
Blast furnaces 4 and 5	Month 1			1643662
	Month 2			1559492
	Month 3			1309778
Coke ovens	Month 1			514104
	Month 2			531690
	Month 3			543023
BOS Plant	Month 1			218194
	Month 2			204273
	Month 3			169218

Signed on behalf of the Operator



Dated 19/07/17

Form Installation gas

WASTE PRODUCTION

Operational summary for quarter ending 31/06/2017

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

Release point	Month	Steel slag (tonnes)	Desulph slag (tonnes)	Hazardous waste * (tonnes)	Non hazard waste * (tonnes)	BF slag (tonnes)	Oil used in coke ovens (tonnes)	Waste oil reductant (tonnes)
BOS	Apr	41340	1540					
	May	28305	825					
	Jun	35055	1100					
Iron and steel installation	Apr			2.2	792			
	May			1.4	1419			
	Jun			1.6	3013			
BF4 tapholes	Apr					35383		
	May					34463		
	Jun					29996		
BF5 tapholes	Apr					36686		
	May					38017		
	Jun					31654		
BF5	Apr							0.00
	May							0.00
	Jun							0.00
Coke ovens	Apr						227	**
	May						212	**
	Jun						159	**

* Disposal to Morfa landfill site non-hazardous and hazardous cells.

** WID compliant Oil.

Signed on behalf of the Operator 

Dated 21/07/17

Form Waste 1

RELEASES INTO AIR

Operational summary for quarter ending 31/06/2017

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)	1191	2184	1681	2184	2184	2054	2109
Mean load (%MCR)	52.9	59.4	48.1	89.4	84.2	62.3	68.3
Mean flue gas flow (Nm ³ /hr)	39294	77920	47228	213339	232700	153341	198775
Heavy Fuel Oil							
Average net CV (GJ/t)	40.9	40.9	40.9	40.9	40.9	40.9	
Max. sulphur content (g/Kg)	10	10	10	10	10	10	
Max. asphaltene content (g/Kg)	46	46	46	46	46	46	
Ave.%wt Sulphur	0.995	0.995	0.995	0.995	0.995	0.995	
NOx factor	0.1	0.1	0.1	0.1	0.1	0.1	
Coke Oven Gas							
Average net CV (GJ/km ³)	17.33	17.33	17.33	17.33	17.33	17.33	
Sulphur content (g/m ³)	3.98	3.98	3.98	3.98	3.98	3.98	
NOx factor	0.04	0.04	0.04	0.04	0.04	0.04	
Blast Furnace Gas							
Average net CV (GJ/km ³)	3.57	3.57	3.57	3.57	3.57	3.57	3.57
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)	36.7	36.7	36.7	36.7	36.7	36.7	36.7
NOx factor	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Signed on behalf of the Operator



Dated 06/07/17

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

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	13-Jun-16 13:55	03-Apr-17 10:49			30-May-17 09:47	
Flowrate (Nm ³ /hr)	100519	63833			259028	
NO _x measured** conc. (mg/Nm ³)	68 (+/-3.8)	21 (+/-1.3)			42 (+/-2.8)	
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 (%)	1%	8%			0%	
BF gas (%)	69%	91%			94%	
Coke oven gas (%)	30%	1%			5%	
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

05/07/17

Form LCPD DCM NO_x

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

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	13-Jun-16 13:55	03-Apr-17 10:49			30-May-17 09:47	
Flowrate (Nm ³ /hr)	100519	63833			259028	
NO _x measured** conc. (mg/Nm ³)	68 (+/-3.8)	21 (+/-1.3)			42 (+/-2.8)	
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 (%)	1%	8%			0%	
BF gas (%)	69%	91%			94%	
Coke oven gas (%)	30%	1%			5%	
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

05/07/17

Form LCPD DCM NO_x

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

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	17	3	0		20
	M	0	17	5	32335		32357
	J	0	17	5	8847		8869
A50B Service Boiler 5	A	0	5256	51	69359		74666
	M	0	8336	102	55997		64435
	J	0	1514	19	8224		9757
A51 Boiler A5	A	0	1	0	58027	12	58040
	M	0	1	18882	59471	11	78365
	J	0	1	5823	3	2	5829
A52A Boiler 6	A	0	0	31566	241446	23	273034
	M	0	0	26535	240406	22	266963
	J	0	0	6393	47820	4	54217
A52B Boiler 7	A	369	0	176906	235431	2405	415110
	M	0	0	205076	232612	1814	439502
	J	0	0	36125	46708	634	83467
A53 Mitchell	A	14	9	63915	108020		171959
	M	18	0	68955	127326		196299
	J	0	0	10216	21724		31939
A62 Boiler 3	A			7	192576	11746	204329
	M			8	150404	17276	167688
	J			1	38007	2198	40206
Total	A	383	5284	272447	904858	14185	1197158
	M	18	8354	319563	898551	19123	1245610
	J	0	1531	58582	171333	2838	234284

Signed on behalf of the Operator



Dated 04/07/17

Form LCPD Fuels

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

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	4.3	33.3	28/04/17 08:00	0.9	3.7	100%
	May	8.5	109.7	08/05/17 17:00	0.1	9.2	98%
	Jun	7.6	97.8	01/06/17 21:00	0.6	9.1	100%
A51 Boiler A5	Apr	1.4	5.5	05/04/17 20:00	0.8	0.6	100%
	May	1.6	10.5	29/05/17 07:00	0.8	1.1	98%
	Jun	0.4	13.6	10/06/17 07:00	0.0	0.8	100%
A52A Boiler 6	Apr	1.5	4.6	25/04/2017 14:00	1.2	0.2	100%
	May	1.3	2.4	04/05/17 10:00	0.9	0.2	98%
	Jun	1.3	3.4	19/06/17 17:00	0.7	0.2	100%
A52B Boiler 7	Apr	0.8	19.3	27/4/2017 14:00	0.4	1.2	100%
	May	0.6	2.6	29/5/2017 00:00	0.1	0.3	98%
	Jun	0.5	3.3	19/6/2017 17:00	-0.1	0.4	100%
A53 Mitchell	Apr	2.1	31.8	06/04/17 15:00	0.0	2.8	100%
	May	2.0	5.1	21/05/17 07:00	0.5	0.6	98%
	Jun	2.2	4.6	09/06/17 11:00	-0.1	0.6	100%

Signed on behalf of the Operator



Dated 06/07/17

Form LCPD CEM Parts

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

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	86.9	137.1	04/06/2017 13:00	30.0	19.3	100%
	May	81.0	163.7	26/05/2017 19:00	31.1	21.2	98%
	Jun	104.2	246.2	19/06/2017 20:00	14.2	35.0	100%
A52B Boiler 7	Apr	44.7	140.9	06/04/2017 6:00	23.5	16.7	100%
	May	49.9	160.9	18/5/2017 20:00	22.9	24.6	98%
	Jun	63.1	186.3	10/06/2017 4:00	22.3	30.8	66%
A50A & A50B Service Boilers	Apr	222.6	536.3	20/04/2017 6:00	43.4	82.3	100%
	May	229.3	656.9	29/05/2017 3:00	2.0	117.0	98%
	Jun	299.4	732.6	16/06/2017 10:00	39.8	121.7	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	162.9	340.1	18/04/2017 16:00	61.1	45.0	100%
	May	174.3	578.0	17/05/2017 13:00	48.4	51.9	98%
	Jun	186.4	367.9	27/06/2017 16:00	57.9	57.2	100%
A52B Boiler 7	Apr	132.9	374.3	06/04/2017 6:00	53.5	45.2	100%
	May	145.7	580.6	17/5/2017 13:00	51.4	63.1	98%
	Jun	138.2	460.0	27/06/2017 17:00	56.2	66.6	100%
A50A & A50B Service Boilers	Apr	155.1	733.4	04/04/2017 7:00	2.4	128.6	100%
	May	187.0	1003.5	19/05/2017 8:00	2.7	157.6	98%
	Jun	326.4	1362.1	21/06/2017 8:00	5.0	280.1	100%

Signed on behalf of the Operator



Dated 06/07/17

Form LCPD CEMS SO2 & NOx

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

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 reponse	Fuel weighted monthly limit	% Abnormal condtions
A62 Boiler 3	Apr	3.7	2.0	11-Apr-17	0.9	0.7	100.00%	9.8	98.3%
	May	6.5	1.8	04-May-17	0.0	1.3	97.85%	9.6	93.1%
	Jun	3.8	1.5	09-Jun-17	-0.6	1.1	100.00%	8.9	77.4%
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 reponse	Fuel weighted monthly limit	% Abnormal condtions
A62 Boiler 3	Apr	212.4	118.0	29-Apr-17	42.0	50.4	100.00%	194.1	98.3%
	May	277.2	122.5	31-May-17	0.0	70.4	97.8%	187.9	93.1%
	Jun	237.3	125.8	10-Jun-17	38.4	53.0	100.00%	162.9	77.4%
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 reponse	Fuel weighted monthly limit	% Abnormal condtions
A62 Boiler 3	Apr	87.8	42.1	24-Apr-17	11.0	19.0	100.00%	196.4	98.3%
	May	148.1	66.8	05-May-17	0.0	42.7	97.85%	192.7	93.1%
	Jun	145.6	70.5	12-Jun-17	17.2	33.6	100.00%	177.5	77.4%

Boiler 3 off from 21 January 2016.

Signed on behalf of the Operator



Dated 06/07/17

RELEASES INTO AIR

Operational summary for quarter ending 31/06/2017

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

Brooks J. Anthony

Dated 06/07/17

Form LCPD CEMS LOG

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

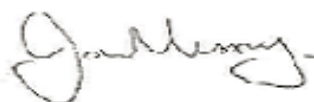
Permit: BL7108 / NP3938GZ

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	55 (+/- 5.2)	300 (+/- 25.5)	252 (+/- 21.6)	6250 (+/- 534.4)
Measured oxygen content (%)	16.6	16.6	16.6	16.6
Measured conc. according to condition 10.1.3a (17%O2)	50	272	229	5669
Sampling method used	BS EN 13284	BS 6069	ISO 10849	BS ISO 12039
Analytical method used	Gravimetric	*EC	*EC	*EC
Date of sampling	08-May-17	08-May-17	08-May-17	08-May-17
Sample start time	12:11	12:11	12:11	12:11
Sample end time	13:11	13:11	13:11	13:11
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	61.9			
Process status at the time of sampling				
Mean sulphur content of sinter blend in use (%)	0.044	0.044	0.044	0.044
Reverts content of sinter blend in use (%)	10.4	10.4	10.4	10.4
Mean chloride content of sinter blend in use (%)	0.01	0.01	0.01	0.01
Throughput during sampling period (% of maximum)	60.0	60.0	60.0	60.0

* EC - electrochemical cell

Signed on behalf of the Operator



Dated 26/07/17

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

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	13.0	13.0	0.7	39.1	33.9	5.9	1.8	5.2	5.2	1.6	10.0	9.2	3.5	2.3	0.0	0.0	0.03	0.4	0.2	0.1	0.12
February	5.4	5.4	0.6	39.8	35.6	6.8	0.8	2.8	2.8	1.2	10.4	9.5	3.6	1.8	0.0	0.0	0.03	0.4	0.2	0.2	0.11
March	6.2	6.2	0.8	45.6	41.9	3.1	3.6	4.0	4.0	1.9	12.8	12.0	2.5	2.5	0.1	0.1	0.05	0.3	0.2	0.1	0.11
April	6.9	6.9	0.7	24.7	21.3	2.8	0.0	3.6	3.6	0.5	2.6	2.5	0.9	3.9	0.1	0.1	0.04	0.3	0.1	0.1	0.19
May	0.0	0.0	0.2	9.3	7.9	1.2	7.2	4.4	4.4	0.4	2.3	2.2	0.7	5.3	0.1	0.1	0.05	0.2	0.1	0.1	0.17
June	0.0	0.0	0.0	11.7	10.4	1.2	6.5	5.3	5.3	0.0	2.4	2.2	0.7	5.7	0.1	0.1	0.02	0.2	0.1	0.1	0.12
July																					
August																					
September																					
October																					
November																					
December																					
Totals	25	25	2	125	111	16	6	12	12	5	33	31	10	7	0.1	0.1	0.1	1.0	0.6	0.4	0.3
	309							109							3						
	Service		A5	Margam C		Mit	3	Service		A5	Mgm C		Mit	3	Service		A5	Mgm C		Mit	3
Boiler Plant Totals	49		2	236		16	6	24		5	64		10	7	0		0	2		0	0
NERP Annual Limit (T)	686		251	2219		575		252		96	929		212		20		4	56		10	

Signed on behalf of the Operator



Dated 17/07/17

Form LCPD Monthly 1

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

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	23-May-17 12:03	22-May-17 12:26				19-Jun-17 10:50	19-Jun-17 10:52	14-Feb-17 11:32
Flowrate (Nm3/hr)	145803	212317				279013	165947	26,896
NOx measured conc.(mg/Nm3) **	41 (+/-1.6)	37 (+/-1.4)				364 (+/- 26.1)	496 (+/-34.7)	18 (+/-0.4)
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 (%)	2%	16%				76%	58%	100%
BF gas (%)	72%	75%						0%
Coke oven gas (%)	15%	9%				24%	42%	
BOS Gas (%)	10%							

* EC - electrochemical cell

A30, A31 & A32 are no longer a permit requirement/ non operational

A39 has a 6 monthly monitoring requirement.

Signed on behalf of the Operator



Dated 17/07/17

Form I&S DCM NOx

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / NP3938GZ

Release Points: A6, A7, A34A & A34B

SULPHUR DIOXIDE - SO2 (DISCONTINUOUS MONITORING)					
Release Point	A6	A7	A34A	A34B	A39 #
Time and date of sampling	23-May-17 12:03	22-May-17 12:26	19-Jun-17 10:50	19-Jun-17 10:52	14-Feb-17 11:32
Flowrate (Nm3/hr)	145803	212317	279013	165947	26,896
SO2 measured conc.(mg/Nm3)	51.9 (+/- 1.8)	34 (+/- 1.4)	142 (+/-11.2)	445 (+/-32.2)	0 (+/- 0.0)
SO2 limits (mg/Nm3)	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 (%)	2%	16%	76%	58%	100%
BF gas (%)	72%	75%			0%
Coke oven gas (%)	15%	9%	24%	42%	
BOS Gas (%)	10%				

* EC - electrochemical cell

A39 has a 6 monthly monitoring requirement

Signed on behalf of the Operator



Dated 17/07/17

Form I&S DCM SO2

RELEASES INTO AIR

Operational summary for quarter ending 31/06/2017

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/A22	A6	A7	-	A46* (annual)
Parameter	Chloride (as HCl)	Carbon monoxide			Oxides of nitrogen
Time and date of sampling	19-Apr-17 11:19	23-May-17 12:03	22-May-17 12:26		- -
Flowrate (Nm3/hr)	14,647	145803	212317		-
Measured conc.(mg/Nm3)	0.1 (+/-0.0)	6514 (+/-213.1)	6107 (+/- 202.9)		-
Emission limits (mg/Nm3)	5				
Sampling method used	Isokinetic	BS ISO 12039	BS ISO 12039		ISO 10849
Analytical method used	BSEN1911	EC *	EC *		EC *
Fuel usages over the sampling period					
Natural gas (%)		2%	16%		
BF gas (%)		72%	75%		
Coke oven gas (%)		15%	9%		
BOS Gas (%)		10%			

* 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

19/07/17



Form I&S DCM Misc

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

Release Points: A4A, A5A, & iron plating

[illegible]

Liquid Iron Plating Operations (Iron Plating Pit)			
Date	Time	Tonnes	Reason
13/04/17	03:13	216	Metallurgy Reasons
03/04/17	17:24	297	Metallurgy Reasons
03/04/17	16:21	240	Metallurgy Reasons
02/04/17	12:15	228	Metallurgy Reasons
02/04/17	11:33	180	Metallurgy Reasons
01/04/17	23:06	184	Metallurgy Reasons
01/04/17	21:29	217	Metallurgy Reasons
01/04/17	04:51	172	Metallurgy Reasons
19/04/17	19:08	237	Reduced Steel Output
19/04/17	18:34	228	Reduced Steel Output
18/04/17	00:01	267	Metallurgy Reasons
17/04/17	22:07	279	Metallurgy Reasons
16/04/17	22:37	184	Metallurgy Reasons
16/04/17	21:58	217	Metallurgy Reasons
14/04/17	15:40	217	Metallurgy Reasons
Total		3363	

Signed on behalf of the Operator



Form I&S Operational 1

Dated 06/07/17

RELEASES INTO AIR

Operational summary for quarter ending 31/06/2017

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

Operator: Tata Steel UK Ltd

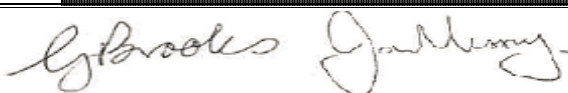
Location: Port Talbot Works

Permit: BL7108

Release Points: Iron plating continued

Liquid Iron Plating Operations (Iron Plating Pit)			
Date	Time	Tonnes	Reason
13/04/17	12:19	250	Metallurgy Reasons
13/04/17	11:49	209	Metallurgy Reasons
13/04/17	03:43	190	Metallurgy Reasons
10/05/17	13:44	217	Metallurgy Reasons
29/04/17	18:53	190	Metallurgy Reasons
29/04/17	18:44	204	Metallurgy Reasons
25/04/17	12:20	240	Metallurgy Reasons
25/04/17	10:54	161	Metallurgy Reasons
25/04/17	10:23	217	Metallurgy Reasons
25/04/17	09:08	250	Metallurgy Reasons
25/04/17	05:34	161	Metallurgy Reasons
25/04/17	05:11	282	Metallurgy Reasons
21/04/17	11:45	282	Metallurgy Reasons
20/05/17	10:19	290	Metallurgy Reasons
20/05/17	09:20	180	Metallurgy Reasons
20/05/17	08:27	228	Metallurgy Reasons
17/05/17	07:09	228	Metallurgy Reasons
17/05/17	06:30	171	Metallurgy Reasons
16/05/17	12:50	228	Metallurgy Reasons
14/05/17	03:53	237	Metallurgy Reasons
12/05/17	03:09	256	Metallurgy Reasons
12/05/17	01:49	190	Metallurgy Reasons
25/05/17	06:19	161	Metallurgy Reasons
25/05/17	04:09	217	Metallurgy Reasons
25/05/17	03:13	228	Metallurgy Reasons
25/05/17	01:45	232	Metallurgy Reasons
25/05/17	00:43	228	Metallurgy Reasons
23/05/17	08:31	282	Metallurgy Reasons
23/05/17	06:59	273	Metallurgy Reasons
21/05/17	00:31	294	Metallurgy Reasons
20/05/17	19:27	184	Metallurgy Reasons
20/05/17	11:23	161	Metallurgy Reasons
31/05/17	00:51	273	Metallurgy Reasons
30/05/17	14:38	218	Metallurgy Reasons
29/05/17	17:30	228	Metallurgy Reasons
29/05/17	05:57	216	Metallurgy Reasons
28/05/17	19:47	206	Metallurgy Reasons
28/05/17	17:46	218	Metallurgy Reasons
25/05/17	19:41	186	Metallurgy Reasons
25/05/17	10:11	228	Metallurgy Reasons
Total		8894	

Signed on behalf of the Operator ...



Dated 06/07/17

Form I&S Operational 1

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

Release Points: Iron plating continued

Liquid Iron Plating Operations (Iron Plating Pit)			
Date	Time	Tonnes	Reason
25/05/17	08:47	268	Metallurgy Reasons
25/05/17	07:13	218	Metallurgy Reasons
02/06/17	06:00	228	Metallurgy Reasons
01/06/17	07:03	228	Metallurgy Reasons
01/06/17	05:41	190	Metallurgy Reasons
01/06/17	02:00	228	Metallurgy Reasons
01/06/17	00:37	218	Metallurgy Reasons
01/06/17	00:03	190	Metallurgy Reasons
31/05/17	22:59	216	Metallurgy Reasons
31/05/17	16:29	228	Metallurgy Reasons
31/05/17	16:00	228	Metallurgy Reasons
31/05/17	02:06	240	Metallurgy Reasons
12/06/17	06:33	282	Metallurgy Reasons
11/06/17	16:34	310	Metallurgy Reasons
11/06/17	15:55	282	Metallurgy Reasons
11/06/17	09:42	194	Metallurgy Reasons
11/06/17	08:23	254	Metallurgy Reasons
09/06/17	13:24	192	Metallurgy Reasons
03/06/17	02:51	291	Metallurgy Reasons
02/06/17	08:57	190	Metallurgy Reasons
02/06/17	08:30	232	Metallurgy Reasons
02/06/17	07:13	161	Metallurgy Reasons
13/06/17	09:44	300	Metallurgy Reasons
13/06/17	02:16	294	Metallurgy Reasons
13/06/17	00:53	200	Metallurgy Reasons
12/06/17	23:09	237	Metallurgy Reasons
12/06/17	22:15	228	Metallurgy Reasons
12/06/17	13:57	162	Metallurgy Reasons
12/06/17	13:19	228	Metallurgy Reasons
12/06/17	11:23	240	Metallurgy Reasons
12/06/17	10:43	228	Metallurgy Reasons
12/06/17	07:44	194	Metallurgy Reasons
18/06/17	10:44	180	Metallurgy Reasons
18/06/17	00:01	198	Metallurgy Reasons
17/06/17	23:38	256	Metallurgy Reasons
17/06/17	20:28	240	Metallurgy Reasons
Total		8253	

Signed on behalf of the Operator ...



Dated 06/07/17

Form I&S Operational 1

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

Operator: Port Talbot Works

Location: Port Talbot Works

Permit: BL7108

Release Points: Iron plating continued

Liquid Iron Plating Operations (Iron Plating Pit)			
Date	Time	Tonnes	Reason
17/06/17	19:29	230	Metallurgy Reasons
16/06/17	12:38	221	Metallurgy Reasons
16/06/17	11:39	217	Metallurgy Reasons
16/06/17	07:54	268	Metallurgy Reasons
16/06/17	04:17	126	Metallurgy Reasons
13/06/17	10:38	228	Metallurgy Reasons
23/06/17	22:56	228	Metallurgy Reasons
23/06/17	19:09	278	Metallurgy Reasons
23/06/17	18:41	180	Metallurgy Reasons
23/06/17	00:51	207	Metallurgy Reasons
22/06/17	21:23	228	Metallurgy Reasons
19/06/17	08:19	228	Metallurgy Reasons
19/06/17	08:02	206	Metallurgy Reasons
19/06/17	06:33	228	Metallurgy Reasons
29/06/17	14:24	228	Metallurgy Reasons
27/06/17	09:33	200	Metallurgy Reasons
27/06/17	09:11	297	Metallurgy Reasons
27/06/17	03:48	161	Metallurgy Reasons
27/06/17	02:24	235	Metallurgy Reasons
24/06/17	18:03	190	Metallurgy Reasons
24/06/17	17:10	228	Metallurgy Reasons
24/06/17	04:52	273	Metallurgy Reasons
24/06/17	03:45	217	Metallurgy Reasons
24/06/17	00:29	268	Metallurgy Reasons
Total		5370	

Signed on behalf of the Operator

Dated 06/07/17

Form I&S Operational 1

RELEASES INTO AIR

Operational summary for quarter ending 31/06/2017

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 Daily mean	2	2.0	0.1	2.8	1.8	0.2	2.2	100%	100%
	May		2	2.0	0.1	2.7	1.6	0.2	2.2	100%	100%
	Jun		4	2.0	0.4	10.3	1.8	0.7	2.8	100%	100%
A8B	Apr	15 Daily mean	3	2.1	0.2	15.6	1.7	0.6	7.2	100%	100%
	May		3	2.2	0.2	7.3	1.9	0.5	2.7	100%	100%
	Jun		7	2.2	1.0	12.1	1.8	1.2	3.0	100%	100%
A9	Apr	15 Daily mean	8	0.0	2.1	16.5	0.9	2.1	0.8	100%	100%
	May		6	0.0	1.6	13.5	0.7	1.6	0.6	100%	100%
	Jun		5	0.0	1.5	13.4	0.0	1.9	0.6	100%	100%
A2*	Apr	30 Daily mean	53	0.0	17.4	107.1	0.0	20.4	24.1	100%	100%
	May		55	5.9	12.9	121.7	0.0	18.7	31.4	100%	100%
	Jun		28	7.2	6.1	38.6	0.0	9.1	20.8	100%	100%
A10	Apr	15 Daily mean	75	3.6	13.9	75.4	6.6	16.5	11.0	100%	100%
	May		9	0.0	2.1	24.5	0.0	4.7	4.7	100%	100%
	Jun		9	0.7	1.9	14.0	1.9	3.0	3.5	100%	100%
A14	Apr	15 Daily mean	21	5.0	3.3	36.7	8.5	5.8	12.2	100%	100%
	May		10	0.3	2.1	13.1	0.9	2.9	5.2	100%	100%
	Jun		12	1.9	2.6	56.3	3.1	9.7	4.4	100%	100%
A15	Apr	15 Daily mean	4	1.2	0.6	20.4	2.9	3.1	3.1	100%	100%
	May		4	1.9	0.4	6.0	2.6	0.9	2.8	100%	100%
	Jun		16	1.8	3.9	48.4	2.7	9.1	4.5	100%	100%
A16	Apr	15 Daily mean	5	2.1	1.0	15.3	2.9	2.3	3.4	100%	100%
	May		5	1.9	0.8	6.7	2.8	0.9	2.7	100%	100%
	Jun		8	1.4	1.7	23.0	2.0	4.1	2.9	100%	100%

*A2 ELV discussed with NRW as derogation

Signed on behalf of the Operator



Dated 19/07/17

Form I&S CEMS Parts 1 & 2

RELEASES INTO AIR

Operational summary for quarter ending 31/06/2017

Operator: Tata Steel UK Ltd
Location: Port Talbot Works
Permit: BL7108 / RP3730BV

Iron Ore Sintering - Record of strand stoppages > 30 minutes				
Date	Time	Duration (mins)	Planned/	Reason
	Start		Unplanned	
02-Apr-17	13:23	1h 19m	Unplanned	increased pcme showing no signs of dropping waste gas visually poor, stopped to clear precip
02-Apr-17	20:14	1h 56m	Unplanned	1003 motor change as motor burnt out due to build up of material under 1003 conv.
03-Apr-17	01:08	149h 52m	Planned	Strand stopped after emptying as per run off plan, cooler then emptied.
09-Apr-17	07:00	38h 19m	Planned	Completion of 8 day PM period
10-Apr-17	21:47	36m	Unplanned	Whilst filling the Strand with new material. Cooler dip rail outer x 3 plus 1027 trip activated.
10-Apr-17	23:03	29m	Planned	Stopped to Sinter through after filling Strand and rolling paper in after major PM period.
11-Apr-17	03:47	2h 33m	Unplanned	1048 upper valve not sealing, plant stopped and covers taken off to inspect and clean away blockage.
11-Apr-17	08:45	20m	Unplanned	Bearing temps high, tripped fan. Traced to scaling issue and wrong set point.
11-Apr-17	09:40	26m	Unplanned	Bearing temps high, tripped fan. Traced to scaling issue and wrong set point.
11-Apr-17	10:55	24m	Unplanned	Bearing temp high, tripping fan. Traced to scaling issue and wrong set point.
11-Apr-17	12:55	55m	Unplanned	Bearing temp high, tripping fan. Traced to scaling issue and wrong set point.
12-Apr-17	12:15	2h 10m	Unplanned	North drive re-alignment
12-Apr-17	19:00	24m	Unplanned	Pallet change No73 off No118 on
13-Apr-17	04:02	23m	Unplanned	Compaction on strand, stop taken to sinter through as precaution 04:02hrs-04:17hrs and Stop 04:55-05:03 (Low temps)
15-Apr-17	23:48	37m	Unplanned	issues with burners.
16-Apr-17	00:55	1h 35m	Unplanned	Delay to insert large blank
16-Apr-17	14:20	1h 42m	Unplanned	Removing both the large and small blanks from South windmain.
11-Apr-17	17:15	50m	Unplanned	Stop - 17:15 - 18:06 both wg fans tripped
18-Apr-17	12:48	43m	Unplanned	Cleaning spider leg chutes. ledge in 1008 chute looks to be to close to chute acting like a dirt ledge, trapping sinter over a period of time
18-Apr-17	15:03	34m	Unplanned	Deck repairs to impact area.
21-Apr-17	04:32	17m	Unplanned	Stop to sinter through due to unsettled sintering conditions
21-Apr-17	11:09	45m	Unplanned	Pallet change for hole, 35 off 60 on, bars missing on back row South side.
21-Apr-17	19:05	30m	Unplanned	Cover off to inspect chain
21-Apr-17	22:30	1h 30m	Unplanned	Gulping out blocked chain
23-Apr-17	16:23	23m	Unplanned	Stopped to inspect screen, damage to screen foun see SAP.
24-Apr-17	07:26	2h 0m	Planned	fitting blanks for SWG electrical upgrade
26-Apr-17	15:42	34m	Unplanned	Blocked chute alarm, checked no issues found plant brought back in.
27-Apr-17	13:40	1h 44m	Unplanned	Taking 1024 spare screen up
28-Apr-17	18:00	41m	Unplanned	found lump detectors activated unable to reset due to supply cable fault to detector units,
29-Apr-17	09:32	43m	Unplanned	Delay to clean build up on spider chutes on discharge of strand
24-Apr-17	09:26	3h 16m	Unplanned	Load or Energy Stop at Peak Rate Period
03-May-17	03:09	19m	Unplanned	Pallet change for hole 57 off 35 on, hole on front row South side
03-May-17	13:30	31m	Unplanned	Hearth layer bin dropped quickly and did not recover see shift below for further info. Found wear plate jamming 1031 chute
03-May-17	14:31	1h 11m	Unplanned	Stop taken to check 1024 scren deck due to issues with Hearth layer, during this time 1025 south drive drive shaft removed as
03-May-17	22:38	45m	Unplanned	clearing material from around 1008 and changing 2 rollers on 1022
04-May-17	03:09	18m	Unplanned	clearing material away from around 1008
04-May-17	07:24	10h 46m	Planned	8 hourPlanned maintenace period
04-May-17	19:34	21h 1m	Unplanned	chain parted and unable to go in to precip due to castle key situation.
04-May-17	18:14	1h 5m	Unplanned	roll feeder main gate motor coupling failure
05-May-17	18:18	19m	Unplanned	Loss of temps along strand plant stopped to recover temps. Stop 17:40-17:45 sinter through. Stop 18:23-18:37 sinter through.

Signed on behalf of the Operator

Dated 24/07/17

Form Sinter Operational

[BACK UP](#)

RELEASES INTO AIR

Form Sinter Operational Cont.

Operational summary for quarter ending 31/06/2017

RELEASES INTO AIR

Form Sinter Operational Cont.

Operational summary for quarter ending

31/06/2017

Operator: Tata Steel UK Ltd
Location: Port Talbot Works
Permit: BL7108 / RP3730BV

Iron Ore Sintering - Record of strand stoppages > 30 minutes				
Date	Time		Planned/	Reason
	Start	Duration (mins)	Unplanned	
05-May-17	23:04	1h 56m	Unplanned	1048 / 1048 Ddv built up with material. stopped to clear chute and chain.
07-May-17	02:01	22m	Unplanned	Bars missing from north side trailing row
07-May-17	02:54	22m	Unplanned	Hood tripped slam shut activated
11-May-17	03:21	28m	Unplanned	South fan tripped on Motor windings thermister and North fan tripped on windmilling.
11-May-17	04:00	22m	Unplanned	North fan tripped on windmilling
12-May-17	03:54	23m	Unplanned	Hole in North side of pallet 13, changed with pallet 57
12-May-17	12:22	19m	Unplanned	Cooler wheel 28 showing movement, Running rail outer by No2 cooling not secured. Cooler gapped to position trays for repair
12-May-17	13:12	1h 57m	Unplanned	Cooler wheels 28 showing movement, Running rail outer by No2 cooling not secured. Cooler gapped to position trays for repair. Cooler tray wheel 28 changed.
15-May-17	10:50	5h 7m	Unplanned	Delay for Kings to carry out inspection and repairs to Field 2
17-May-17	02:55	25m	Unplanned	Pallet change 17 off 108 on
19-May-17	19:36	24m	Unplanned	Delay due to 1026 tracking over, plate found in chute from 1025.
21-May-17	10:45	33m	Unplanned	Stop to clean material b/u on the grids beneath 1008 feeder.
21-May-17	19:26	46m	Unplanned	Stop taken to repair/fit dirt box under 1008 impact area. Spillage upto exciters. Some cleaning carried out sametime.
22-May-17	12:20	3h 3m	Unplanned	Stop to perform repairs to holes in the deck of 1008 feeder.
22-May-17	15:24	26m	Unplanned	1004-con lump detector activated by blobs of very wet material. Mixer stopped and belt dug off several times before able to run 1004 without material activating the paddles.
23-May-17	03:28	18m	Unplanned	Pallet change No118 off No134 on
23-May-17	08:37	20m	Unplanned	Delay to carry out joint repairs to 1022
24-May-17	03:51	20h 9m	Planned	Shut down and run off for 18 hr planned maintenance.
25-May-17	03:10	1h 19m	Unplanned	Cold crusher drums jammed with large lumps of hard Sinter, previously sintered through on the Strand for maintenance stop.
25-May-17	06:44	17m	Unplanned	Hood tripped, no clear reason for trip. Slam shut valve activated on restart.
26-May-17	10:18	20m	Unplanned	Pallet change for hole. 74 off, 118 on
26-May-17	20:35	35m	Unplanned	Load Management
26-May-17	23:20	46m	Unplanned	delay to cool sinter due to 1003 East belt weigher out of cal
28-May-17	11:30	45m	Unplanned	Suspected issue with h/end full / cycle fault issues with 1048 DDV, see below
28-May-17	12:15	18m	Unplanned	Unable to start fan after plant stop, stop/start button sticking.
28-May-17	12:35	25m	Unplanned	Raw mix issues, water had been running into mixer while plant on stop for 1048 issue, resulting in wet material at roll feeder
01-Jun-17	05:30	20m	Unplanned	Stop- 05:30 - 05:50 gapping cooler for opportunity PM. Maintenance stop taken to repair mdip rail entry outer rail, replace 1064 conveyor, change 1024 screen, 1027 joint replacement, 1022 joint repair.
01-Jun-17	06:58	12h 12m	Unplanned	Maintenance stop taken to repair mdip rail entry outer rail, replace 1064 conveyor, change 1024 screen, 1027 joint replacement, 1022 joint repair.
02-Jun-17	02:14	19m	Unplanned	Strand tripped ,no alarm. Traced to strand tacho belts slack.
02-Jun-17	03:43	29m	Unplanned	Strand tripped, no alarm. Traced to strand tacho belts slack.
02-Jun-17	04:34	20m	Unplanned	Strand tripped, no alarm. Traced to strand tacho belts slack.
02-Jun-17	06:25	50m	Unplanned	tensioning strand tacho drive belt
02-Jun-17	13:28	47m	Unplanned	found 3 straps on south side of 1020 had failed, stopped to replace missing straps
03-Jun-17	08:21	7h 23m	Unplanned	cooler trays 29,30 and 31 derailed by No2 cooling fan
03-Jun-17	17:51	10h 39m	Unplanned	delay to replace trays 30 - 32 on cooler
05-Jun-17	21:12	1h 24m	Unplanned	Cooler fault traced to outer e-stop/ultimate limit circuit and traced fault to damaged wire in E-stop junction box by 12 O&E™ clock
07-Jun-17	19:34	1h 27m	Unplanned	Issues with Tacho, burnt off connection, no feedback going back to Allen West see sap feedback, connection remade no further
06-Jun-17	22:45	1h 41m	Unplanned	1006 Con contactor issue, parts removed from old contactors to make one good. Energy transformer related issues during this time T21 & T22 control issue from sinter to energy.

Signed on behalf of the Operator

Dated 24/07/



Form Sinter Operational

RELEASES INTO AIR

Form Sinter Operational Cont.

Operational summary for quarter ending

31/06/2017

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / RP3730BV

[illegible]

Signed on behalf of the operator
Dated: 24-Jul-17

Brooks Johnny

RELEASES INTO AIR

Operational summary for quarter ending 31/06/2017

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	1.8	0.5	2.1	18.5	0.7	0.7	1.0	100%	100%
	May	Daily mean	6.1	0.3	2.1	24.5	0.5	12.3	0.9	100%	100%
	Jun		1.1	0.2	1.9	14.0	0.5	0.7	0.6	75%	75%
A63	Apr	25	Inconsistent data during the period - to be investigated.								
	May	Hourly mean									
	Jun										

Signed on behalf of the Operator



Dated 17/07/17

Form I&S CEMS Part 3

RELEASES INTO AIR

Operational summary for quarter ending

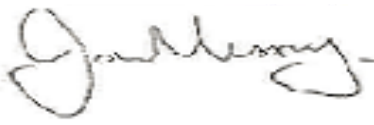
31/06/2017

Operator: Port Talbot Works

Location: Port Talbot Works

Permit: BL7108 / RP3730BV

	NOx (tonnes)	Lead (tonnes)	PM10 (tonnes)	CO2 (k tonnes)
Morfa	529			
Iron & Steel	706	1.8	336	1604
Total	1236	1.8	336	1604

Signed on behalf of the Operator 

Dated 27/07/17

Form KPI

RELEASES INTO AIR

Operational Summary for quarter ending 31/06/2017

Operator: Tata Steel Strip Products UK

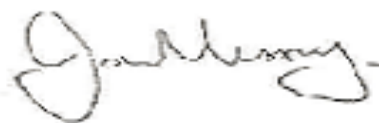
Location: Port Talbot Works

Permit: BL7108

Release Points:

PARTICULATE MATTER (DISCONTINUOUS MONITORING)		
Release Point	A6	A7
Time and date of sampling	23-May-17 12:03	22-May-17 12:26
Flowrate (Nm3/hr)	261,994	207,274
Particulate measured conc. (mg/Nm3)	2.3 (+/-0.8)	2.7 (+/-1.2)
Particulate limit (mg/Nm3)	10	10
Sampling method used	BS EN 13284	BS EN 13284
Analytical method used	Gravimetric	Gravimetric
Fuel Usage		
Natural gas (%)	0%	24%
BF gas (%)	67%	75%
Coke oven gas (%)	6%	1%
BOS (%)	26%	

Signed on behalf of the Operator



Dated

27/07/2017

Form Blast Furnace DCM Part

RELEASES INTO AIR

Operational summary for the six months to

31-Dec-16

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	5.40 (+/- 0.5)	0.40 (+/-0.1)	0.8	18.6 (+/-2.3)	74.0 15.9	0.48 (+/- 0.08)	0.50 (+/- 0.08)	10.00 (+/-3.36)
Measured oxygen (%)	16.6	16.6	17.0	17.0	17.0	17.0	17.0	17.0
Measured conc. according to condition 10.1.3a (17%O2)	4.9	0.4	0.8	18.6	74.0	0.5	0.5	10.00
Cogeners<LoD at zero						0.48	0.50	
Cogeners<LoD at LoD						0.48	0.50	
Analytical method used	IC	IC	ICP MS	BS EN 12619	BS ISO 11338	BS EN 1948	BS EN 1948	BS EN 13211
Date of sampling	08-May-17	08-May-17	11-Jan-17	25-Apr-17	25-Apr-17	25-Apr-17	25-Apr-17	26-Apr-17
Sample start time	10:18	11:40	10:57	14:55	11:41	11:41	11:41	10:07
Sample end time	11:15	12:48	12:14	15:55	16:57	16:55	16:55	13:03
Limit of detection	0.1	0.01	0.1	0.016	0.6	0.001	0.001	0.090
Continuous particulate result during sampling (hourly mean)	61	64	20	99	78	78	78	87
Process status at time of sampling								
Mean sulphur content of sinter blend in use (%)	0.044	0.044	0.045	0.042	0.042	0.042	0.042	0.041
Reverts content of sinter blend in use (%)	10.4	10.4	13.5	9.86	9.9	9.9	9.9	10.1
Mean chloride content of sinter blend in use (%)	No data available	No data available	0.01	0.016	0.016	0.016	0.016	No data available
Throughput during sampling period (% of maximum)	65	65	60	59	50	50	50	57

* 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 26/07/2017

Form Sinter DCM 2

RELEASES INTO AIR

Operational Summary for quarter ending 31/06/2017

Operator: Tata Steel Strip Products UK

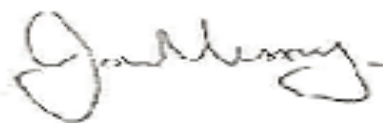
Location: Port Talbot Works

Permit: BL7108

Release Points:

PARTICULATE MATTER (DISCONTINUOUS MONITORING)		
Release Point	A6	A7
Time and date of sampling	23-May-17 12:03	22-May-17 12:26
Flowrate (Nm3/hr)	261,994	207,274
Particulate measured conc. (mg/Nm3)	2.3 (+/-0.8)	2.7 (+/-1.2)
Particulate limit (mg/Nm3)	10	10
Sampling method used	BS EN 13284	BS EN 13284
Analytical method used	Gravimetric	Gravimetric
Fuel Usage		
Natural gas (%)	0%	24%
BF gas (%)	67%	75%
Coke oven gas (%)	6%	1%
BOS (%)	26%	

Signed on behalf of the Operator



Dated

27/07/2017

Form Blast Furnace DCM Part