

RELEASES TO AIR

Operational summary for quarter ending 30-Sep-18

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	78896		
	Month 2	49576		
	Month 3	21823		
A13A BOS convertor 2 gas flare	Month 1	157792		
	Month 2	99151		
	Month 3	43645		
A33 Blast furnace gas flare stack no.1	Month 1	67760		
	Month 2	28436		
	Month 3	14858		
A33C Blast furnace gas flare stack no.2	Month 1	77208		
	Month 2	65077		
	Month 3	28709		
A33A Blast furnace gas main number 4 bleeder	Month 1		34	
	Month 2		23	
	Month 3		36	
A33B Blast furnace gas main number 5 bleeder	Month 1		415	
	Month 2		281	
	Month 3		263	
A59 Coke oven gas triple flare	Month 1	94328		
	Month 2	110124		
	Month 3	16465		
Blast furnaces 4 and 5	Month 1			1326013
	Month 2			1368358
	Month 3			1245129
Coke ovens	Month 1			509750
	Month 2			426078
	Month 3			464975
BOS Plant	Month 1			164279
	Month 2			174621
	Month 3			158399

Signed on behalf of the Operator

Dated 03/10/18

Form Installation gas

WASTE PRODUCTION

Operational summary for quarter ending 30-Sep-18

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

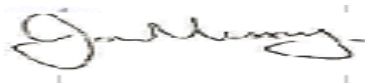
Permit: BL7108

Release point	Month	Steel slag (tonnes)	Desulph slag (tonnes)	Hazardous waste * (tonnes)	Non hazardous waste * (tonnes)	BF slag (tonnes)	Oil used in coke ovens (tonnes)	Waste oil reductant (tonnes)
BOS	Jul	33827	1459					
	Aug	43886	9602					
	Sep	43882	3090					
Iron and steel installation	Jul			37.4	3717			
	Aug			17.5	729			
	Sep			9.6	1167			
BF4 tapholes	Jul					31808		
	Aug					28355		
	Sep					33615		
BF5 tapholes	Jul					29227		
	Aug					33915		
	Sep					11661		
BF5	Jul							0.00
	Aug							0.00
	Sep							0.00
Coke ovens	Jul						139	**
	Aug						74	**
	Sep						119	**

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

** WID compliant Oil.

Signed on behalf of the Operator



Dated 10/10/18

Form Waste 1

RELEASES INTO AIR

Operational summary for quarter ending 30-Sep-18

Operator: Tata Steel UK Ltd

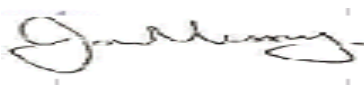
Location: Port Talbot Works

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)	2208	2048	1803	1659	2208	2074	2208
Mean load (%MCR)	49.3	55.5	49.3	82.7	80.8	66.3	65.3
Mean flue gas flow (Nm ³ /hr)	74772	67462	52025	169142	227223	172340	166240
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)	16.81	16.81	16.81	16.81	16.81	16.81	
Sulphur content (g/m ³)	5.21	5.21	5.21	5.21	5.21	5.21	
NOx factor	0.04	0.04	0.04	0.04	0.04	0.04	
Blast Furnace Gas							
Average net CV (GJ/km ³)	3.70	3.70	3.70	3.70	3.70	3.70	3.70
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)	37.6	37.6	37.6	37.6	37.6	37.6	37.6
NOx factor	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Signed on behalf of the Operator



Dated

16/10/18

Form LCPD Operating 1

RELEASES INTO AIR

Operational summary for quarter ending 30-Sep-18

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

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

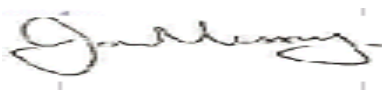
OXIDES OF NITROGEN - NOx (DISCONTINUOUS MONITORING)						
Release Point	A50A&B Service 4&5	A51 A5	A52A No.6	A52B No.7	A53 Mitchell	A62 No.3
Time and date of sampling		01-Aug-18 10:11			25-Sep-18 10:45	
Flowrate (Nm3/hr)		63683			161792	
NOx measured** conc. (mg/Nm3)		45 (+/-2.1)			38 (+/-2.2)	
NOx limit (mg/NM3)		300 BFG/COG			300 BFG/COG	
Sampling method used		ISO 10849			ISO 10849	
Analytical method used		EC*			EC*	
Continuous hourly monitoring result over the period						
Fuel usages over the sampling period						
Natural gas (%)		4%			4%	
BF gas (%)		80%			80%	
Coke oven gas (%)		17%			5%	
Heavy fuel oil (%)		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

** Mitchell boiler unable to sample will resend when sampling is complete.

Signed on behalf of the Operator



Dated 01/10/18

RELEASES INTO AIR

Operational summary for quarter ending

30-Sep-18

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / NP3938GZ

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

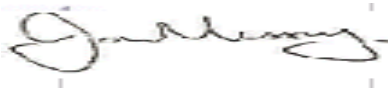
SULPHUR DIOXIDE - SO2 (DISCONTINUOUS MONITORING)						
Release Point	A50A&B Service 4&5	A51 A5	A52A No.6	A52B No.7	A53 Mitchell	A62 No.3
Time and date of sampling		01-Aug-18 10:11			25-Sep-18 10:45	
Flowrate (Nm3/hr)		63683			161792	
SO2 measured conc. (mg/Nm3)		35 (+/- 2.9)			83 (+/- 4.8)	
SO2 limit (mg/NM3)		800 BFG/COG			800 BFG/COG	
Sampling method used		BS 6069			BS 6069	
Analytical method used		EC*			EC*	
Continuous hourly monitoring result over the period						
Fuel usages over the sampling period						
Natural gas (%)		4%			0%	
BF gas (%)		80%			93%	
Coke oven gas (%)		17%			7%	
Heavy fuel oil (%)		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

** Mitchell boiler unable to sample will resend when sampling is complete.

Signed on behalf of the Operator



Dated

01/10/18

RELEASES INTO AIR

Operational summary for quarter ending

30-Sep-18

Operator: Tata Steel UK Ltd

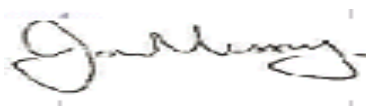
Location: Port Talbot Works

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	J	0	30823	45114	2929		78867
	A	0	41947	29920	3597		75464
	S	0	6333	9679	452		16464
A50B Service Boiler 5	J	0	32259	29870	3052		65182
	A	0	48135	30903	3770		82808
	S	0	15566	8022	486		24074
A51 Boiler A5	J	488	9517	54128	2190	1592	67915
	A	131	5088	58114	1489	1797	66619
	S	0	0	0	0	0	0
A52A Boiler 6	J	9922	29618	76023	5487	14195	135245
	A	1255	54827	212789	7690	21505	298067
	S	47	21535	48471	2641	7436	80131
A52B Boiler 7	J	7679	60041	205533	22809	31161	327223
	A	2079	61418	233911	16911	23271	337590
	S	37	14009	52742	2951	8092	77830
A53 Mitchell	J	1238	6904	106759	3525		118426
	A	172	12743	141908	3414		158237
	S	41	1485	26559	391		28475
A62 Boiler 3	J			173465	12932	5067	191464
	A			172726	16127	5196	194049
	S			16999	7363	1502	25864
Total	J	19327	169162	690893	52924	52015	984321
	A	3637	224158	880271	52999	51770	1212834
	S	124	58928	162473	14283	17030	252837

Signed on behalf of the Operator



Dated 02/10/18

Form LCPD Fuels

RELEASES INTO AIR

Operational summary for quarter ending

30-Sep-18

Operator: Tata Steel UK Ltd

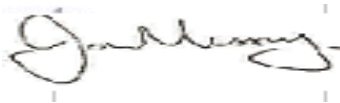
Location: Port Talbot Works

Permit: BL7108

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

PARTICULATE MATTER (mg/Nm ³) - CONTINUOUS EMISSIONS MONITORING							
Release point	Month	Monthly mean LIMIT=20	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	Jul	2.8	49.8	01/07/18 20:00	0.1	3.7	100%
	Aug	2.0	7.6	30/08/18 12:00	0.1	1.4	100%
	Sep	1.4	10.3	02/09/18 17:00	0.1	1.4	100%
A51 Boiler A5	Jul	1.8	39.6	10/07/18 09:00	0.0	4.9	100%
	Aug	0.2	11.8	15/08/18 03:00	0.0	0.9	100%
	Sep	0.3	1.1	13/09/18 04:00	0.0	0.4	100%
A52A Boiler 6	Jul	1.7	22.3	12/07/18 15:00	0.0	3.5	100%
	Aug	1.2	28.0	06/08/18 20:00	0.0	1.9	100%
	Sep	1.2	5.5	10/09/18 02:00	0.7	0.4	100%
A52B Boiler 7	Jul	3.1	43.5	10/07/18 20:00	0.0	7.5	100%
	Aug	0.5	19.5	26/08/18 18:00	0.0	2.0	100%
	Sep	0.4	18.1	02/09/18 17:00	0.0	1.6	100%
A53 Mitchell	Jul	3.1	64.2	21/07/18 15:00	1.8	2.9	100%
	Aug	3.3	16.8	28/08/18 14:00	2.1	1.2	100%
	Sep	2.8	17.5	02/09/18 17:00	0.1	1.4	89%

Signed on behalf of the Operator



Dated 16/10/18

Form LCPD CEM Parts

RELEASES INTO AIR

Operational summary for quarter ending

30-Sep-18

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	Jul	169.7	917.5	11/07/2018 10:00	0.0	246.5	100%
	Aug	124.2	933.4	26/08/2018 18:00	0.0	158.3	100%
	Sep	202.1	879.2	02/09/2018 19:00	48.6	66.0	100%
A52B Boiler 7	Jul	N/D					
	Aug	N/D					
	Sep	N/D					
A50A & A50B Service Boilers	Jul	180.9	694.6	01/07/2018 20:00	3.3	99.6	100%
	Aug	277.7	704.8	27/08/2018 9:00	21.6	160.6	100%
	Sep	283.0	653.1	07/09/2018 12:00	36.4	113.1	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	Jul	236.6	892.5	11/07/2018 7:00	0.0	289.0	100%
	Aug	278.8	853.3	26/08/2018 19:00	0.0	158.6	100%
	Sep	388.5	777.3	02/09/2018 19:00	56.5	74.6	100%
A52B Boiler 7	Jul	N/D					
	Aug	N/D					
	Sep	N/D					
A50A & A50B Service Boilers	Jul	432.3	1447.1	27/07/2018 14:00	42.4	292.1	100%
	Aug	720.1	2104.1	03/08/2018 4:00	49.3	498.0	100%
	Sep	713.6	1868.0	02/09/2018 15:00	70.7	381.0	100%

Signed on behalf of the Operator



Dated 16/10/18

Form LCPD CEMS SO2 & NOx

RELEASES INTO AIR

Operational summary for quarter ending 30-Sep-18

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / NP3938GZ

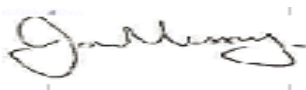
Release Point: A62

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	Jul	4.1	1.4	28-Jul-18	-0.1	0.9	100.0%	9.5	90.6%
	Aug	9.0	2.5	15-Aug-18	0.5	1.8	100.0%	9.3	85.8%
	Sep	10.6	3.1	20-Sep-18	0.9	2.0	100.0%	8.4	66.3%
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	Jul	21.4	21.1	02-Jul-18	20.9	0.1	100.0%	182.8	90.6%
	Aug	21.2	21.0	23-Aug-18	20.8	0.1	100.0%	175.8	85.8%
	Sep	21.4	21.1	01-Sep-18	20.9	0.1	100.0%	148.3	66.3%
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	Jul	27.6	8.5	10-Jul-18	5.6	4.7	100.0%	189.6	90.6%
	Aug	8.9	6.9	16-Aug-18	5.5	0.8	100.0%	185.3	85.8%
	Sep	11.2	7.9	21-Sep-18	5.8	1.5	100.0%	168.6	66.3%

Boiler 3 off from 21 January 2016.

Signed on behalf of the Operator

Dated 16/10/18



RELEASES INTO AIR

Operational summary for quarter ending

30-Sep-18

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/Nm ³)	40	500	500	
Measured conc. according to condition 10.1.3b	89 (+/- 8.2)	241 (+/- 22)	199 (+/- 18.2)	6250 (+/- 495.5)
Measured oxygen content (%)	16.5	16.4	16.4	16.4
Measured conc. according to condition 10.1.3a (17%O ₂)	79	209	173	5417
Sampling method used	BS EN 13284	BS 6069	ISO 10849	BS ISO 12039
Analytical method used	Gravimetric	*EC	*EC	*EC
Date of sampling	14-Aug-18	13-Aug-18	13-Aug-18	13-Aug-18
Sample start time	10:55 -	10:35	10:35	10:35
Sample end time	13:21	11:35	11:35	11:35
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	54.2			
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 (%)	11.4	11.4	11.4	11.4
Mean chloride content of sinter blend in use (%)	0.02	0.02	0.02	0.02
Throughput during sampling period (% of maximum)	60.0	60.0	60.0	60.0

* EC - electrochemical cell

Signed on behalf of the Operator



Dated

28/09/18

Form Sinter DCM 1

RELEASES INTO AIR

Operational summary for quarter ending

30-Sep-18

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	13.5	13.5	4.7	26.6	28.3	6.3	1.7	3.7	3.7	1.7	9.1	6.9	4.2	1.3	0.0	0.0	0.03	0.3	0.1	0.2	0.12
February	11.2	11.2	6.3	30.6	22.5	6.3	1.4	3.1	3.1	1.7	8.7	6.5	3.3	1.3	0.0	0.0	0.01	0.3	0.4	0.2	0.12
March	10.2	10.2	4.9	26.9	19.2	5.4	1.4	2.5	2.5	1.5	10.0	8.1	3.6	1.0	0.0	0.0	0.20	0.4	0.1	0.3	0.12
April	6.0	6.0	4.3	28.3	26.6	4.6	1.4	0.9	0.9	1.7	9.0	8.9	3.4	1.0	0.0	0.0	0.00	0.3	0.4	0.3	0.17
May	15.1	15.1	2.1	18.8	12.3	3.2	0.1	2.5	2.5	1.5	8.5	7.6	3.0	0.0	0.0	0.0	0.05	0.2	0.1	0.3	0.01
June	13.8	13.8	4.8	27.2	26.1	1.1	1.4	2.5	2.5	1.7	9.5	8.6	0.4	0.4	0.0	0.0	0.03	0.2	0.1	0.0	0.12
July	10.6	10.6	6.4	22.9	40.8	5.9	0.0	1.5	1.5	1.9	4.7	10.0	3.2	0.4	0.1	0.1	0.03	0.1	0.4	0.2	0.11
August	14.7	14.7	3.7	34.8	39.3	6.3	0.3	2.9	2.9	1.8	8.5	9.8	4.0	0.4	0.0	0.0	0.02	0.2	0.1	0.2	0.19
September	14.1	14.1	1.5	42.9	35.5	5.7	0.3	3.1	3.1	0.7	9.0	8.7	3.3	0.3	0.0	0.0	0.00	0.2	0.1	0.2	0.15
October																					
November																					
December																					
Totals	35	35	16	84	70	18	5	9	9	5	28	22	11	4	0.0	0.0	0.2	1.0	0.7	0.7	0.4
	263						87						3								
	Service	A5	Margam C	Mit	3	Service	A5	Mgm C	Mit	3	Service	A5	Mgm C	Mit	3						
Boiler Plant Totals	70	16	154	18	5	18	5	49	11	4	0	0	2	1	0						
NERP Annual Limit (T)	686	251	2219	575		252	96	929	212		20	4	56	10							

Signed on behalf of the Operator

Dated 26/10/18

Form LCPD Monthly 1

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / NP3938GZ

Release Points: A6, A7, A30, A31, A32, A34A, A34B & A39

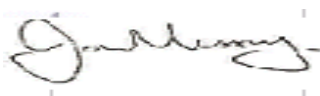
OXIDES OF NITROGEN - NOx (DISCONTINUOUS MONITORING)								
Release Point	A6	A7	A30	A31	A32	A34A	A34B	
Time and date of sampling	20-Jul-18 10:12	18-Jul-18 10:34				05-Jul-18 11:07	03-Jul-18 12:02	
Flowrate (Nm3/hr)	247693	132601				161654	205602	
NOx measured conc.(mg/Nm3) **	44 (+/-1.6)	13 (+/-0.9)				406 (+/- 15.0)	598 (+/-26.2)	
Oxygen content (%)	3.4							
NOx limits (mg/Nm3)	100	100				1800	1800	
Sampling method used	ISO 10849	ISO 10849				ISO 10849	ISO 10849	
Analytical method used	EC *	EC *				EC *	EC *	
Continuous hourly monitoring result over the period								
Fuel usages over the sampling period								
Natural gas (%)	0%	0%				83%	49%	
BF gas (%)	77%	99%						
Coke oven gas (%)	0%	1%				17%	51%	
BOS Gas (%)	23%							

* 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 14/09/18

Form I&S DCM NOx

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / NP3938GZ

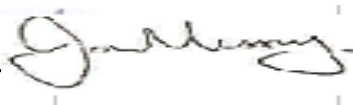
Release Points: A6, A7, A34A & A34B

SULPHUR DIOXIDE - SO₂ (DISCONTINUOUS MONITORING)				
Release Point	A6	A7	A34A	A34B
Time and date of sampling	20-Jul-18 10:12	18-Jul-18 10:34	05-Jul-18 11:07	03-Jul-18 12:02
Flowrate (Nm ³ /hr)	247693	132601	161654	205602
SO ₂ measured conc.(mg/Nm ³)	10.1 (+/- 1.7)	12 (+/- 1.8)	106 (+/-4.9)	489 (+/-21.5)
SO ₂ limits (mg/Nm ³)	200	200	1400	1400
Sampling method used	BS6069	BS6069	BS6069	BS6069
Analytical method used	EC *	EC *	EC *	EC *
Continuous hourly monitoring result over the period				
Fuel usages over the sampling period				
Natural gas (%)	0%	0%	83%	49%
BF gas (%)	77%	99%		
Coke oven gas (%)	0%	1%	17%	51%
BOS Gas (%)	23%			

* EC - electrochemical cell

A39 has a 6 monthly monitoring requirement

Signed on behalf of the Operator



Dated

14/09/18

Form I&S DCM SO₂

RELEASES INTO AIR

Operational summary for quarter ending 30-Sep-18

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	A39 # (6 Monthly)		
Parameter	Chloride (as HCl)	Carbon monoxide				
Time and date of sampling	10-Jul-18 10:20	20-Jul-18 10:12	18-Jul-18 10:34	Reported in June		
Flowrate (Nm3/hr)	14,725	247693	132601			
Measured conc.(mg/Nm3)	0.5 (+/-0.1)	6484 (+/-203.6)	7131 (+/- 231.3)			
Emission limits (mg/Nm3)	5					
Sampling method used	Isokinetic	BS ISO 12039	BS ISO 12039			
Analytical method used	BSEN1911	EC *	EC *			
Fuel usages over the sampling						
Natural gas (%)		0%	0%			
BF gas (%)		77%	99%			
Coke oven gas (%)		0%	1%			
BOS Gas (%)		23%				

* 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

14/09/18



Form I&S DCM Misc

RELEASES INTO AIR

Operational summary for quarter ending 30-Sep-18

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

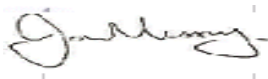
Permit: BL7108

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	Jul	15 Daily mean	3	2.1	0.1	3.3	0.0	0.3	2.6	100%	100%
	Aug		3	2.4	0.1	2.8	0.0	0.1	2.7	100%	100%
	Sep		3	2.6	0.0	2.8	2.4	0.1	2.6	100%	100%
A8B	Jul	15 Daily mean	18	6.0	3.5	76.7	1.9	7.3	7.3	100%	100%
	Aug		31	4.2	6.2	82.6	2.5	10.7	11.4	100%	100%
	Sep		61	2.7	12.9	94.5	1.8	15.3	20.6	100%	100%
A9	Jul	15 Daily mean	10	0.0	2.4	20.5	0.1	3.0	0.9	100%	100%
	Aug		12	0.0	3.9	29.8	0.5	3.7	1.5	100%	100%
	Sep		2	0.0	0.5	22.8	0.4	3.3	0.2	100%	100%
A2*	Jul	30 Daily mean	148	12.5	36.1	212.1	0.0	45.6	48.3	100%	100%
	Aug		47	0.9	12.1	149.9	0.0	17.1	29.8	100%	100%
	Sep		82	0.0	20.2	164.5	0.0	27.1	28.5	100%	100%
A10	Jul	15 Daily mean	2	0.0	0.7	3.6	0.0	0.9	1.0	100%	100%
	Aug		3	0.8	0.5	5.1	2.3	0.7	2.2	100%	100%
	Sep		4	2.0	0.5	6.2	2.6	0.9	2.8	100%	100%
A14	Jul	15 Daily mean	3	2.3	0.3	4.6	2.9	0.4	2.8	100%	100%
	Aug		3	1.8	0.4	4.6	3.3	0.4	2.9	100%	100%
	Sep		4	2.3	0.4	7.5	2.3	1.0	3.1	100%	100%
A15	Jul	15 Daily mean	3	1.8	0.4	4.8	2.6	0.6	2.5	100%	100%
	Aug		3	1.2	0.5	4.6	2.5	0.6	2.4	100%	100%
	Sep		4	0.8	0.6	7.4	0.8	1.3	2.5	100%	100%
A16	Jul	15 Daily mean	8	2.2	1.4	13.8	3.8	2.2	4.3	100%	100%
	Aug		6	0.1	2.2	10.6	0.2	3.7	3.2	100%	100%
	Sep		18	2.5	2.9	17.8	3.4	3.9	4.4	100%	100%

*A2 ELV discussed with NRW as derogation

Signed on behalf of the Operator



Dated

04/10/18

RELEASES INTO AIR

Operational summary for quarter ending 30-Sep-18

Operator: Tata Steel UK Ltd

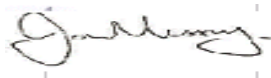
Location: Port Talbot Works

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	Jul	15	1.0	0.1	0.7	3.6	0.1	1.7	0.5	100%	100%
	Aug	Daily mean	1.0	0.1	0.5	5.1	0.5	0.5	0.5	100%	100%
	Sep		1.2	0.0	0.5	6.2	0.0	0.7	0.6	75%	75%
A63	Jul	25	Inconsistent data during the period - to be investigated.								
	Aug	Hourly mean									
	Sep										

Signed on behalf of the Operator



Dated 05/10/18

Form I&S CEMS Part 3

RELEASES INTO AIR

Operational summary for quarter ending

30-Sep-18

Operator: Port Talbot Works

Location: Port Talbot Works

Permit: BL7108 / RP3730BV

	NOx (tonnes)	Lead (tonnes)	PM10 (tonnes)	CO2 (k tonnes)
Morfa	457			
Iron & Steel	668	1.6	290	1384
Total	1125	1.6	290	1384

Signed on behalf of the Operator

Dated 16/10/18



Form KPI

RELEASES INTO AIR

Operational Summary for quarter ending 31/06/2018

Operator: Tata Steel Strip Products UK

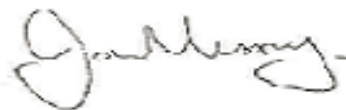
Location: Port Talbot Works

Permit: BL7108

Release Points:

PARTICULATE MATTER (DISCONTINUOUS MONITORING)		
Release Point	A6	A7
Time and date of sampling	03-May-18 10:01	08-May-18 12:26
Flowrate (Nm ³ /hr)	120,140	160,521
Particulate measured conc. (mg/Nm ³)	9.3 (+/-2.9)	1.7 (+/-1.9)
Particulate limit (mg/Nm ³)	10	10
Sampling method used	BS EN 13284	BS EN 13284
Analytical method used	Gravimetric	Gravimetric
Fuel Usage		
Natural gas (%)	5%	0%
BF gas (%)	67%	100%
Coke oven gas (%)	8%	0%
BOS (%)	20%	

Signed on behalf of the Operator



Dated

14/09/2018

Form Blast Furnace DCM Part

RELEASES INTO AIR

Operational Summary for the month Aug-2018

Operator: Tata Steel UK Ltd

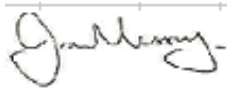
Permit: BL7108 / RP3730BV

Location: Port Talbot Works

Release Point: A1

Day	% max throughput	% data capture	% EP availability	% JIT 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-Aug-18	60	100%	100%	17%	0.027	0.021	9.29%	69	97	66	39	16	121	69	0	26
02-Aug-18	69	100%	100%	6%	0.027	0.021	9.29%	95	124	95	75	11	154	95	56	21
03-Aug-18	72	100%	100%	4%	0.029	0.023	10.24%	71	95	73	49	15	100	71	44	17
04-Aug-18	65	100%	100%	10%	0.029	0.023	10.24%	70	91	69	45	13	112	70	0	26
05-Aug-18	73	100%	100%	0%	0.029	0.023	10.24%	96	113	95	77	9	134	96	69	15
06-Aug-18	72	100%	100%	1%	0.029	0.023	10.24%	96	134	96	80	16	187	96	68	24
07-Aug-18	66	100%	100%	1%	0.023	0.02	10.68%	39	111	43	0	45	129	39	0	48
08-Aug-18	8	100%	100%	88%	0.023	0.02	10.68%	4	24	1	0	5	98	4	0	20
09-Aug-18	58	100%	100%	55%	0.023	0.02	10.68%	65	92	62	38	15	195	65	6	36
10-Aug-18	68	100%	100%	100%	0.023	0.02	10.68%	85	104	86	70	8	114	85	54	15
11-Aug-18	70	100%	100%	100%	0.023	0.02	10.68%	78	109	81	42	24	121	78	34	28
12-Aug-18	30	100%	100%	100%	0.044	0.023	11.39%	30	82	27	0	23	98	30	0	32
13-Aug-18	64	100%	100%	100%	0.044	0.023	11.39%	58	76	58	45	9	76	58	35	12
14-Aug-18	69	100%	100%	100%	0.044	0.023	11.39%	78	88	78	63	8	98	78	55	10
15-Aug-18	54	100%	100%	100%	0.044	0.023	11.39%	66	106	64	17	25	126	66	0	34
16-Aug-18	27	100%	100%	80%	0.044	0.023	11.39%	42	120	47	0	46	234	42	0	58
17-Aug-18	56	100%	100%	26%	0.020	N/A	9.86%	46	66	44	8	18	88	46	0	22
18-Aug-18	74	100%	100%	100%	0.020	N/A	9.86%	78	100	76	62	9	122	78	56	14
19-Aug-18	66	100%	100%	100%	0.020	N/A	9.86%	69	118	72	44	25	159	69	34	27
20-Aug-18	67	100%	100%	100%	0.020	N/A	9.86%	79	99	78	46	16	148	79	34	26
21-Aug-18	68	100%	100%	100%	0.020	N/A	12.92%	87	110	88	69	11	154	87	34	27
22-Aug-18	75	100%	100%	67%	0.020	N/A	12.92%	57	78	58	40	11	93	57	31	16
23-Aug-18	61	100%	100%	98%	0.020	N/A	12.92%	61	70	60	40	8	97	61	3	21
24-Aug-18	63	100%	100%	64%	0.020	N/A	12.92%	56	95	57	14	19	133	56	0	30
25-Aug-18	60	100%	100%	64%	0.014	N/A	12.17%	49	71	48	31	10	107	49	0	20
26-Aug-18	41	100%	100%	74%	0.014	N/A	12.17%	27	55	30	0	19	67	27	0	22
27-Aug-18	48	100%	100%	20%	0.014	N/A	12.17%	49	95	46	0	25	135	49	0	33
28-Aug-18	59	100%	100%	3%	0.014	N/A	12.17%	51	85	49	33	14	143	51	25	25
29-Aug-18	60	100%	100%	3%	0.014	0.021	12.17%	57	91	59	31	19	111	57	26	22
30-Aug-18	45	100%	100%	28%	0.014	0.021	12.17%	51	84	53	0	21	122	51	0	32
31-Aug-18	N/A	100%	100%	96%	0.013	0.021	12.15%	49	63	38	13	13	104	38	0	18
Month ave	59	100%	100%	58%	0.03	0.02	0.1	62	-	61	-	-	-	61	-	-
Month max.	75	-	-	-	0.04	0.02	0.1	96	134	-	-	-	234	-	-	-
Limit	-	-	-	-	0.06	-	-	40	-	-	-	-	-	-	-	-

* No data available.



Signed on behalf of the Operator

Dated 28/09/2018

Form Sinter CEMS

RELEASES INTO AIR

Operator: Tata Steel Strip Products UK

Location: Port Talbot Works

Permit: BL7108 / RP3730BV

Release Points: A39

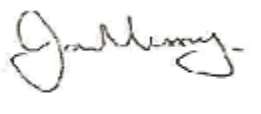
PARTICULATE MATTER (DISCONTINUOUS MONITORING)		
Release Point		A39 HY2
Time and date of sampling		17-Aug-18 09:43
Flowrate (Nm ³ /hr)		727123
Particulate measured conc. (mg/Nm ³)		36
Particulate limit (mg/Nm ³)		25
Sampling method used		BS EN 13284
Analytical method used		Gravimetric

*Part A S5N_17_61A completed on 22/06/2017 and emailed to NRW

Form GCI DCM Part

*Part A S5N_17_106A completed on 13/09/2017 and emailed to NRW

Signed on behalf of the Operator



Dated 08/10/2018

RELEASES INTO AIR

Operational summary for quarter ending

30-Sep-18

Operator: Tata Steel UK Ltd

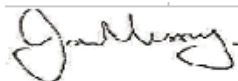
Location: Port Talbot Works

Permit: BL7108

Release Points: Iron plating continued

Liquid Iron Plating Operations (Iron Plating Pit)			
Date	Time	Tonnes	Reason
02/07/18	10:58	268	Metallurgy Reasons
08/07/18	10:39	278	Metallurgy Reasons
08/07/18	09:21	228	Metallurgy Reasons
07/07/18	22:05	228	Metallurgy Reasons
07/07/18	20:10	278	Metallurgy Reasons
07/07/18	04:52	212	Metallurgy Reasons
07/07/18	02:43	228	Metallurgy Reasons
07/07/18	00:46	180	Metallurgy Reasons
06/07/18	19:30	285	Metallurgy Reasons
06/07/18	18:12	240	Metallurgy Reasons
06/07/18	07:53	247	Metallurgy Reasons
16/07/18	03:58	228	Metallurgy Reasons
16/07/18	02:36	278	Metallurgy Reasons
16/07/18	01:48	273	Metallurgy Reasons
16/07/18	00:59	171	Metallurgy Reasons
15/07/18	08:41	161	Metallurgy Reasons
15/07/18	08:06	228	Metallurgy Reasons
13/07/18	18:10	278	Metallurgy Reasons
10/07/18	12:21	192	Metallurgy Reasons
09/07/18	07:22	171	Metallurgy Reasons
09/07/18	06:00	217	Metallurgy Reasons
23/07/18	20:35	247	Metallurgy Reasons
23/07/18	19:13	216	Metallurgy Reasons
17/07/18	06:34	228	Metallurgy Reasons
17/07/18	05:36	268	Metallurgy Reasons
16/07/18	15:20	280	Metallurgy Reasons
16/07/18	14:04	306	Metallurgy Reasons
16/07/18	11:34	228	Metallurgy Reasons
16/07/18	10:22	180	Metallurgy Reasons
16/07/18	09:12	162	Metallurgy Reasons
16/07/18	08:29	197	Metallurgy Reasons
30/07/18	03:32	228	Metallurgy Reasons
29/07/18	20:21	280	Metallurgy Reasons
29/07/18	18:52	237	Metallurgy Reasons
29/07/18	18:27	190	Metallurgy Reasons
29/07/18	17:10	300	Metallurgy Reasons
29/07/18	12:15	180	Metallurgy Reasons
29/07/18	10:48	237	Metallurgy Reasons
29/07/18	09:14	212	Metallurgy Reasons
28/07/18	12:44	217	Metallurgy Reasons
Total		9262	

Signed on behalf of the Operator

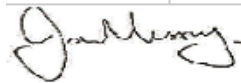


Dated 01/10/18

Form I&S Operational 1

Liquid Iron Plating Operations (Iron Plating Pit)			
Date	Time	Tonnes	Reason
01/07/18	10:48	180	Metallurgy Reasons
01/07/18	10:12	247	Metallurgy Reasons
01/07/18	07:43	237	Metallurgy Reasons
01/07/18	06:39	268	Metallurgy Reasons
01/07/18	05:37	228	Metallurgy Reasons
01/07/18	04:51	282	Metallurgy Reasons
04/07/18	14:21	240	Metallurgy Reasons
04/07/18	14:00	174	Metallurgy Reasons
03/07/18	20:09	268	Metallurgy Reasons
03/07/18	18:56	228	Metallurgy Reasons
03/07/18	11:51	240	Metallurgy Reasons
03/07/18	11:10	230	Metallurgy Reasons
02/07/18	16:02	218	Metallurgy Reasons
02/07/18	15:20	217	Metallurgy Reasons
02/07/18	11:39	237	Metallurgy Reasons
Total		3494	

Signed on behalf of the Operator



Form I&S Operational 1

Dated 01/10/18

RELEASES INTO AIR

Operational Summary for the month Jul-2018

Operator: Tata Steel UK Ltd

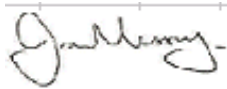
Permit: BL7108 / RP3730BV

Location: Port Talbot Works

Release Point: A1

Day	% max throughput	% data capture	% EP availability	% JIT 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-Jul-18	32	100%	100%	70%	0.019		12.77%	48	117	48	0	48	176	48	0	56
02-Jul-18	73	100%	100%	32%	0.019		12.77%	95	153	96	54	30	215	95	50	42
03-Jul-18	61	100%	100%	45%	0.019		12.77%	63	106	64	33	26	142	63	24	30
04-Jul-18	13	100%	100%	83%	0.019		12.77%	19	96	23	0	34	181	19	0	42
05-Jul-18	50	100%	100%	45%	0.019		12.77%	110	202	105	40	39	238	110	17	56
06-Jul-18	54	100%	100%	100%	0.019		12.77%	64	83	67	39	14	91	64	0	23
07-Jul-18	57	100%	100%	100%	0.024		11.94%	33	101	35	0	36	124	33	0	42
08-Jul-18	63	100%	100%	100%	0.024		11.94%	67	123	60	0	46	151	67	0	51
09-Jul-18	61	100%	100%	100%	0.024		11.94%	104	129	103	75	15	170	104	22	30
10-Jul-18	68	100%	100%	100%	0.024		11.94%	82	128	85	51	22	143	82	27	28
11-Jul-18	66	100%	100%	100%	0.028	0.038	12.02%	75	121	77	56	19	185	75	46	30
12-Jul-18	65	100%	100%	100%	0.028	0.038	12.02%	71	121	70	49	20	148	71	42	26
13-Jul-18	66	100%	100%	100%	0.028	0.038	12.02%	113	157	112	72	26	216	113	36	44
14-Jul-18	63	100%	100%	100%	0.028	0.038	12.02%	105	180	105	46	34	216	105	0	50
15-Jul-18	65	100%	100%	100%	0.028	0.038	12.02%	103	126	99	72	16	169	103	62	31
16-Jul-18	49	100%	100%	97%	0.026		10.78%	87	159	95	0	47	195	87	0	61
17-Jul-18	63	100%	100%	100%	0.026		10.78%	96	163	91	12	39	192	96	29	44
18-Jul-18	31	100%	100%	99%	0.026		10.78%	98	195	97	0	57	272	98	0	80
19-Jul-18	41	100%	100%	84%	0.026		10.78%	110	176	116	0	55	207	110	0	76
20-Jul-18	41	100%	100%	78%	0.026		10.78%	58	99	52	0	30	129	58	0	41
21-Jul-18	22	100%	100%	76%	0.026		10.78%	26	102	28	0	32	108	26	0	35
22-Jul-18	23	100%	100%	67%	0.026		10.78%	21	56	23	0	22	98	21	0	29
23-Jul-18	63	100%	100%	19%	0.026		10.78%	55	81	51	17	20	89	55	0	22
24-Jul-18	70	100%	100%	23%	0.026		10.78%	88	123	88	63	19	134	88	45	24
25-Jul-18	64	100%	100%	13%	0.025		9.29%	95	135	95	63	22	154	95	37	36
26-Jul-18	71	100%	100%	4%	0.025		9.29%	85	128	86	52	24	200	85	49	37
27-Jul-18	33	100%	100%	56%	0.025		9.29%	32	75	32	0	29	104	32	0	35
28-Jul-18	70	100%	100%	2%	0.025		9.29%	54	66	55	43	7	77	54	39	10
29-Jul-18	67	100%	100%	7%	0.027	0.021	9.29%	61	76	60	48	7	102	61	24	15
30-Jul-18	64	100%	100%	13%	0.027	0.021	9.29%	82	99	78	59	13	149	82	50	25
31-Jul-18	55	100%	100%	96%	0.027	0.021	9.29%	83	106	85	54	14	118	84	9	19
Month ave	54	100%	100%	67%	0.02	0.03	0.1	73	-	73	-	-	-	73	-	-
Month max.	73	-	-	-	0.03	0.04	0.1	113	202	-	-	-	272	-	-	-
Limit	-	-	-	-	0.06	-	-	40	-	-	-	-	-	-	-	-

* No data available.



Signed on behalf of the Operator

Dated 28/09/2018

Form Sinter CEMS

RELEASES INTO AIR

Operational Summary for the month Sep-2018

Operator: Tata Steel UK Ltd

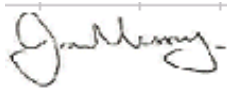
Permit: BL7108 / RP3730BV

Location: Port Talbot Works

Release Point: A1

Day	% max throughput	% data capture	% EP availability	% JIT 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-Sep-18	47	100%	100%	26%	0.013	0.021	12.15%	48	100	48	0	28	113	48	0	37
02-Sep-18	27	100%	100%	60%	0.013	0.021	12.15%	26	81	29	0	27	132	26	0	35
03-Sep-18	0	100%	100%	100%	0.013	0.021	12.15%	0	0	0	0	0	0	0	0	0
04-Sep-18	0	100%	100%	100%	0.013	0.021	12.15%	0					0	0	0	0
05-Sep-18	0	100%	100%	100%	0.013	0.021	12.15%	0					0	0	0	0
06-Sep-18	0	100%	100%	100%	0.013	0.021	12.15%	0	0	0	0	0	0	0	0	0
07-Sep-18	0	100%	100%	100%	0.013	0.021	12.15%	0	0	0	0	0	0	0	0	0
08-Sep-18	0	100%	100%	100%	0.013	0.021	12.15%	0	0	0	0	0	0	0	0	0
09-Sep-18	7	100%	100%	100%	0.013	0.021	12.15%	0	1	0	0	1	5	0	0	1
10-Sep-18	34	100%	100%	40%	0.013	0.021	12.15%	62	141	60	0	38	268	62	0	57
11-Sep-18	28	100%	100%	53%	0.013	0.021	12.15%	25	47	23	6	13	96	25	0	24
12-Sep-18	61	100%	100%	11%	0.013	0.021	12.15%	86	110	84	43	20	152	86	29	29
13-Sep-18	60	100%	100%	15%	0.013	0.021	12.15%	64	96	67	43	19	123	64	0	32
14-Sep-18	21	100%	100%	69%	0.013	0.021	12.15%	9	51	12	0	11	37	9	0	11
15-Sep-18	5	100%	100%	92%	0.013	0.021	12.15%	9	57	9	0	20	170	9	0	35
16-Sep-18	34	100%	100%	53%	0.013	0.021	12.15%	50	108	45	0	39	155	50	0	44
17-Sep-18	42	100%	100%	38%	0.016	0.024	12.61%	45	78	47	0	25	100	45	0	31
18-Sep-18	51	100%	100%	23%	0.016	0.024	12.61%	38	61	39	21	12	65	38	0	20
19-Sep-18	61	100%	100%	12%	0.016	0.024	12.61%	16	28	17	7	6	29	16	0	7
20-Sep-18	40	100%	100%	44%	0.016	0.024	12.61%	15	34	15	2	10	69	15	0	16
21-Sep-18	61	100%	100%	17%	0.016	0.024	12.61%	21	28	21	15	4	40	21	0	8
22-Sep-18	36	100%	100%	53%	0.016	0.024	12.61%	10	23	10	0	8	25	10	0	9
23-Sep-18	71	100%	100%	6%	0.016	0.024	12.61%	34	69	31	16	15	87	34	10	20
24-Sep-18	55	100%	100%	30%	0.015	0.023	12.69%	38	85	40	0	25	131	38	0	32
25-Sep-18	79	100%	100%	1%	0.015	0.023	12.69%	50	69	49	18	14	87	50	15	20
26-Sep-18	73	100%	100%	8%	0.015	0.023	12.69%	51	69	50	38	10	86	51	31	16
27-Sep-18	22	100%	100%	72%	0.015	0.023	12.69%	32	96	32	0	37	137	32	0	45
28-Sep-18	81	100%	100%	1%	0.015	0.023	12.69%	36	57	37	23	10	66	36	19	13
29-Sep-18	49	100%	100%	36%	0.022	N/A	13.59%	18	42	19	0	13	44	18	0	14
30-Sep-18	69	100%	100%	6%	0.022	N/A	13.59%	33	48	32	20	9	55	33	18	11
Month ave	37	100%	100%	49%	0.01	0.02	0.1	27	-	29	-	-	-	27	-	-
Month max.	81	-	-	-	0.02	0.02	0.1	86	141	-	-	-	268	-	-	-
Limit	-	-	-	-	0.06	-	-	40	-	-	-	-	-	-	-	-

* No data available.



Signed on behalf of the Operator

Dated 15/10/2018

Form Sinter CEMS

RELEASES INTO AIR

Operational summary for quarter ending

30-Sep-18

Operator: Tata Steel UK Ltd
 Location: Port Talbot Works
 Permit: BL7108 / RF3730BV

Iron Ore Sintering - Record of strand stoppages > 30 minutes				
Date	Time		Planned/ Unplanned	Reason
	Start	Duration (mins)		
01-Jul-18	13:44:00	20m	Operational	Stop due to compaction along strand after start after stop large number of lumps at roll feeder gates.
01-Jul-18	19:09:00	18m	Mechanical	Pallet change for hole (North side back row) pallet 141 off and 19 on
02-Jul-18	03:40:00	24m	Mechanical	check 1047 chain. Found blocked.
02-Jul-18	05:17:00	3h 11m	Mechanical	vac out 1047 and check if chain has parted. Hydrant leak fixed.
02-Jul-18	04:52:00	34m	Mechanical	Pallet change for wheel off, also shaft had sheered, pallet 47 off 50 on
02-Jul-18	05:21:00	29m	Mechanical	Stop for pallet change No10 taken off No79 put on. 1022 Joint inspected same time, also inspections of plant chutes looking for missing pallet wheel.
02-Jul-18	05:29:00	25m	Electrical	1021 conveyor underspeed fault. Return roller changed on 1008 during stop.
02-Jul-18	09:25:00	29m	Mechanical	Stop to change three damaged return rollers on 1027-conveyor.
02-Jul-18	15:22:00	21m	Mechanical	Cenwyn required to check 1022 conv belt condition ahead of planned 18hr stop. Rollers on 1002 also changed.
03-Jul-18	04:33:00	2h 34m	Electrical	Power dip. Energy redirected supply, systems reset and plant restarted
03-Jul-18	09:20:00	19h 1m	Planned Maintenance	Stop to run off systems ready for planned maintenance.
03-Jul-18	20:27:00	19m	Mechanical	Pallet change for holed pallet. 23 off 145 on
03-Jul-18	21:03:00	24m	Operational	Motor NDE vertical vibration high, then hood tripped shortly after hood relight extending delay.
04-Jul-18	00:27:00	21m	Mechanical	Pallet 87 off /125 on.
04-Jul-18	04:05:00	2h 21m	Operational	Blockage in return fines feeder
05-Jul-18	02:13:00	54m	Mechanical	1025 screen including hot sinter breaker issues
05-Jul-18	04:29:00	18m	Mechanical	Hard material jammed in crusher.
05-Jul-18	04:46:00	3h 1m	Mechanical	1006/1007 chute blocked to 1007, possible conveyor stopped?
05-Jul-18	07:00:00	27m	Mechanical	Issues with 1007 shuttle conveyor, parked in middle.
05-Jul-18	10:45:00	25m	Mechanical	South motor tripped Nde vertical vibration Slam shut activated when starting hood.
05-Jul-18	16:55:00	38m	Mechanical	Nde vertical vibration x 2 slam shuts
05-Jul-18	23:55:00	18m	Electrical	Changing underspeed on conveyor due to continued alarms and group stopping in sequence.
06-Jul-18	11:42:00	31m	Electrical	Delay to carry out calibration on fines Vega probe
07-Jul-18	22:07:00	53m	Mechanical	stop to refill bunkers. 01:26-02:19 Plant stopped to refill bunkers after blender issues on 902 and cross travel.
07-Jul-18	09:02:00	20m	Mechanical	Pallet change, No 131 off and 10 on
07-Jul-18	13:20:00	16m	Operational	Unsure of exact reason for trip due to the usual bank of alarms for hood trip. Possibly low gas flow as the slam shut valve activated on re-light.
08-Jul-18	08:13:00	28h 40m	Electrical	Mixer North drive cable fault
08-Jul-18	07:54:00	44m	Electrical	underspeed cable damaged
09-Jul-18	09:18:00	18m	Mechanical	South fan tripped on NDE vertical vibration
09-Jul-18	11:21:00	21m	Mechanical	Motor tripped on NDE horizontal vibration reduced rpm on both fans by 5 rpm each
09-Jul-18	11:46:00	1h 0m	Operational	Strand / cooler on stop while running raw / mix mixer empty then sintering through
09-Jul-18	14:47:00	100h 19m	Planned Maintenance	Planned 96hrs maintenance stop
09-Jul-18	18:40:00	46m	Electrical	inner wheel detector bracket needed welding in position
10-Jul-18	00:09:00	26m	Mechanical	pallet change 11 off and 54 on
10-Jul-18	03:23:00	17m	Mechanical	South bent beam pallet 25 delay extended craft on blender
10-Jul-18	03:59:00	55m	Mechanical	Joint in a poor state, stopped to add clips to stop deterioration
10-Jul-18	14:14:00	8h 43m	Mechanical	Belt parted
10-Jul-18	13:28:00	2h 41m	Mechanical	Emptying bins onto 1015. Bins full of hearth layer due to hole in pallet which stopped directly under the h/l bin causing the h/l hopper to completely empty.
11-Jul-18	09:10:00	46m	Mechanical	Offending pallet which caused hearth layer bin to empty changed. Pallet change 60 off 82 on plus slam shut activated.
11-Jul-18	14:53:00	25m	Mechanical	HSB stopped, reversed to clear and restarted.

Signed on behalf of the Operator

Dated

05/10/18

Form Sinter Operational

Operational summary for quarter ending

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/ Unplanned	Reason
11-Jul-18	17:00:00	22m	Operational	hood tripped on cooling water low level.
12-Jul-18	15:46:00	28m	Mechanical	pallet 44 with bearings missing.
13-Jul-18	10:49:00	6m	Electrical	delay due to 1064 dropping out, checked and plant restarted
13-Jul-18	12:18:00	36m	Electrical	Delay to adjust 1065 U/Speed.
14-Jul-18	15:00:00	2h 10m	Operational	Delay taken to initiate down day rap to reduce waste gas emissions
15-Jul-18	02:18:00	27m	Mechanical	Pallet change due to hole in grate bars. Pallet 74 off pallet 110 on.
16-Jul-18	09:55:00	56m	Mechanical	cutting strainers from belt and dead weight
16-Jul-18	11:58:00	5m	Operational	trip activated by bobcat
16-Jul-18	18:52:00	6h 8m	Mechanical	Delay to carry out 1021 belt replacement
17-Jul-18	01:28:00	21m	Mechanical	Pallet change for hole (Back row north side) pallet 128 off and 107 on.
17-Jul-18	03:30:00	4m	Operational	Delay taken to sinter through due to loss of temps.
18-Jul-18	00:00:00	1h 3m	Electrical	fix blanks
18-Jul-18	09:58:00	8h 38m	Planned Maintenance	1065 belt change and other work see sinter comments
18-Jul-18	23:20:00	42m	Operational	Hot material on conveyor
19-Jul-18	02:10:00	44m	Operational	Hot material on cooler
19-Jul-18	18:44:00	14m	Electrical	1022 failed to come in
19-Jul-18	14:30:00	30m	Operational	loss of water pressure to plant causing uncooled material to come off cooler.
19-Jul-18	15:30:00	10m	Operational	plant stopped to sinter through.
19-Jul-18	18:00:00	6h 14m	Operational	Hot sinter / high waste gas daily ave
20-Jul-18	00:26:00	25m	Electrical	Vanes showing closed on H-fix when checked vanes open comms
20-Jul-18	01:28:00	28m	Operational	compaction after restart, stop to sinter thro
20-Jul-18	04:36:00	1h 4m	Mechanical	1064 conveyor belt folded over approx. 7" on west side resulting in spillage coming back to tail drum, belt folding on return as it comes to tail drum, tension slacked off to try and correct belt corrected plant restarted at 05:40hrs on stop again at 05:46hrs belt had folded over again, belt being sourced and set up to change.
20-Jul-18	05:46:00	5h 4m	Mechanical	continued stop from previous shift changing 1064 belt.
20-Jul-18	13:50:00	17m	Operational	high temps on 1021 thought to be due to blended material
20-Jul-18	16:07:00	59m	Mechanical	Removing blanks from NWG fan
21-Jul-18	02:01:00	3h 14m	Mechanical	cooler jammed strand crane used to assist movement see below for full details
21-Jul-18	06:40:00	13h 0m	Mechanical	delay to carry out repairs to tray 31 on cooler.
22-Jul-18	06:15:00	16h 53m	Mechanical	tray 30 in dip rail.
23-Jul-18	01:00:00	1h 27m	Mechanical	Stop 01:00 - 02:27 Cooler support beam coming into contact with deflector plate.
23-Jul-18	02:57:00	30m	Operational	1031 conv buried from discharge chute onto 1032 full of fines.
23-Jul-18	10:35:00	25m	Mechanical	re-clip patch repair on 1026
23-Jul-18	13:05:00	5m	Mechanical	stopped to remove scaffold board in 1022 head chute
24-Jul-18	21:17:00	5m	Mechanical	delay to remove scaffolding board from 1024/1026 chute
24-Jul-18	11:09:00	46m	Mechanical	return rollers changed on 1021, 1022 and 1027
24-Jul-18	12:12:00	4m	Operational	bob cat activated trip on 1021
25-Jul-18	08:05:00	9m	Mechanical	required trackings, upper west side requires changing.
25-Jul-18	09:14:00	2m	Electrical	1066 stopped just to return drive back to 25hz.
25-Jul-18	11:06:00	1h 39m	Mechanical	1009 Drive knuckle failure.

Signed on behalf of the Operator

Dated

05/10/18

Form Sinter Operational

RELEASES INTO AIR

Form Sinter Operational Cont.

Operational summary for quarter ending

30-Sep-18

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/Unplanned	Reason
25-Jul-18	14:57:00	10m	Operational	compaction resulted in stopping plant due to hot sinter bed height probes have been damaged. After plant start for 1009
25-Jul-18	15:13:00	2m	Mechanical	Mixer failed to come
25-Jul-18	17:32:00	7m	Operational	E stop activated on roll feeder.
25-Jul-18	20:09:00	30m	Mechanical	Pallet change 116 off 135 on also slam shut activated.
26-Jul-18	07:28:00	5m	Operational	lost sinter temps long strand after build up.
26-Jul-18	14:44:00	17m	Mechanical	Inspection of conveyor belt 2x splits towards south side material slowly filling trays see sinter comments.
26-Jul-18	16:14:00	12m	Mechanical	Stop to change 3 x rollers along conveyor.
26-Jul-18	21:04:00	16m	Mechanical	Changing rollers on 1022/1021
27-Jul-18	05:57:00	3m	Operational	lump on 1004
28-Jul-18	19:17:00	20m	Mechanical	south fan tripped loss of temps.
28-Jul-18	07:00:00	12h 8m	Mechanical	1022 con belt change
28-Jul-18	12:26:00	5m	Operational	Trip activated
28-Jul-18	20:31:00	8m	Mechanical	Inspected clip patch over 1026 con condition worse than previous nightshift, decided to stop and remove in case of possible further issues.
29-Jul-18	14:34:00	18m	Mechanical	Delay to investigate 1023 deck for hole
29-Jul-18	15:14:00	1h 2m	Mechanical	Delay to carry out catch repairs to 1023 screen
30-Jul-18	16:25:00	3m	Operational	delay to sinter through due to loss of temps
30-Jul-18	18:30:00	1h 4m	Electrical	Elec fault
30-Jul-18	18:57:00	18m	Electrical	Elec fault
30-Jul-18	20:20:00	10m	Electrical	Elec fault
30-Jul-18	20:35:00	4m	Electrical	Elec fault
30-Jul-18	20:48:00	8m	Electrical	Elec fault
30-Jul-18	21:11:00	4m	Electrical	Elec fault
30-Jul-18	21:19:00	4m	Electrical	Elec fault
30-Jul-18	21:30:00	5m	Electrical	Elec fault
30-Jul-18	21:37:00	17m	Electrical	Elec fault
30-Jul-18	22:25:00	8m	Electrical	Elec fault
31-Jul-18	01:47:00	11m	Operational	Exceeded 145mb and vases shut
31-Jul-18	09:05:00	1h 28m	Electrical	Stopped to fit blanks for SWGF motor failure
31-Jul-18	11:32:00	25m	Electrical	NWGF comms fault, issues with PLC tripping the hood
31-Jul-18	12:08:00	15m	Electrical	NWGF comms fault, issues with PLC tripping the hood
31-Jul-18	16:13:00	4m	Mechanical	South belt beam activated
31-Jul-18	22:58:00	46m	Mechanical	remove blanks
01-Aug-18	10:00:00	1h 32m	Mechanical	Stopped to check thrust roller unit
02-Aug-18	09:51:00	23m	Mechanical	Middle row centre 63 off 117 on.
02-Aug-18	12:38:00	21m	Mechanical	Stop to secure a side plate bolt.
02-Aug-18	17:00:00	10m	Operational	loss of strand temps / lumps at roll feeder
02-Aug-18	19:14:00	20m	Operational	hot material seen on cooler stopped to quench
03-Aug-18	08:17:00	6m	Operational	trip activated cleaners in area at time.

Signed on behalf of the operator
 Dated: 05-Oct-18



RELEASES INTO AIR

Form Sinter Operational Cont.

Iron Ore Sintering - Record of strand stoppages > 30 | 30-Sep-18

Operator: Tata Steel UK Ltd
 Location: Port Talbot Works
 Permit: BL7108 / RFS730BV

Iron Ore Sintering - Record of strand stoppages > 30 minutes				
Date	Time		Planned/ Unplanned	Reason
	Start	Duration (mins)		
03-Aug-18	11:36:00	26m	Operational	
04-Aug-18	8:55:00	1h 8m	Electrical	Wind/main over pressure. Over pressure / vanes adjusted that vanes will now only close for 1Min then be able to open
04-Aug-18	11:39:00	1h 26m	Electrical	Repair to deck
06-Aug-18	15:53:00	26m	Mechanical	Sinter through as vanes on SWGF wouldn't open
06-Aug-18	16:20:00	55m	Mechanical	trip activated on 1021 during jet cleaning in area.
06-Aug-18	23:12:00	1h 42m	Electrical	trip activated on 1021 during jet cleaning in area.
07-Aug-18	17:03:00	23m	Electrical	Trip activated/ 1009 needed resetting
07-Aug-18	10:56:00	1h 39m	Electrical	delay to sinter through due to loss of strand temps
07-Aug-18	13:56:00	20m	Mechanical	Delay when 1021 dropped out, no trips showing.
07-Aug-18	21:08:00	2h 8m	Mechanical	delay due to loss of strand temps, wind main suction limit reached and closed vanes.
08-Aug-18	1:35:00	2h 20m	Mechanical	Trip activated, no persons in area
08-Aug-18	4:00:00	4h 31m	Mechanical	De-sintering
09-Aug-18	1:00:00	56m	Electrical	Planned maintenance.
09-Aug-18	7:56:00	10h 18m	Mechanical	delay to remove hard sinter from breaker.
09-Aug-18	11:33:00	16m	Operational	wet material built up in the chute causing vega probe to read excess tonnage
09-Aug-18	13:04:00	41m	Operational	trip activated by cleaners
09-Aug-18	15:21:00	26m	Operational	North bent beam activated
09-Aug-18	18:31:00	39m	Operational	Stopped to check 1064 chute found chute heavily built up with damp material.
09-Aug-18	19:54:00	21m	Operational	delay to inspect lifting wheel area due drive tripping, pallet 136 in area.
10-Aug-18	21:48:00	44m	Operational	Trip activated on 1021 during cleaning, 1009 required reset
10-Aug-18	1:28:00	18m	Operational	delay due to loss of OBL, holding up in hopper
10-Aug-18	1:42:00	20m	Operational	pallet change for hole, 32 off 128 on
10-Aug-18	9:10:00	20m	Operational	Unable to achieve minimum suction to re-light hood
10-Aug-18	10:49:00	34m	Mechanical	Trip activated
10-Aug-18	12:04:00	46m	Operational	58c off 18 on
11-Aug-18	19:54:00	1h 51m	Electrical	1025 screen dropped out came back in
11-Aug-18	20:51:00	29m	Operational	South pump dropped out on over current issues then switching over to the North pump.
11-Aug-18	3:21:00	5h 36m	Mechanical	further problems with mixer water pumps
12-Aug-18	0:00:00	16m	Mechanical	trip activated on 1021, then on start up 1009 needed resetting
12-Aug-18	8:40:00	2h 23m	Planned Maintenance	Stockpile full full, no room in highline bunkers
12-Aug-18	9:26:00	5h 10m	Environmental	(no.18 pallet in area) S bent beam activated.
12-Aug-18	23:33:00	25m	Operational	Crash deck protection plate issues.
13-Aug-18	7:31:00	24m	Operational	Trip activated while cleaning around conveyor
13-Aug-18	9:30:00	2h 0m	Mechanical	1036 On stop, trave found full acting like a brake, due to hole in belt, with higher than normal load.
13-Aug-18	9:46:00	2h 30m	Operational	Large Mixer mesh activated 1004 trip.
13-Aug-18	15:20:00	16m	Electrical	09:46-09:47 Refill Raw Mix Hopper after above..
13-Aug-18	15:04:00	17m	Electrical	1005 South trip activated (letters in area)
14-Aug-18	19:39:00	1h 8m	Electrical	North Bent Beam activated
				No 8 off 116 on end row north side of pallet, during stop roller changed 1022 tiend, breaker casing holed boxed in

Signed on behalf of the operator
 Dated: 05-Oct-18



Iron Ore Sintering - Record of strand stoppages > 30 | 30-Sep-18

Operator: Tata Steel UK Ltd
 Location: Port Talbot Works
 Permit: BL7108 / RF3730BV

Iron Ore Sintering - Record of strand stoppages > 30 minutes				
Date	Time		Planned/ Unplanned	Reason
	Start	Duration (mins)		
14-Aug-18	20:50:00	6m	Operational	loss of sintering temps
14-Aug-18	03:51:00	5m	Operational	loss of sintering temps
14-Aug-18	16:42:00	5m	Operational	trip activated on North side same reset
15-Aug-18	20:34:00	3m	Operational	North bent beam activated
15-Aug-18	04:04:00	3h 26m	Operational	Hi-line bunkers and Stockpile full
15-Aug-18	08:27:00	5m	Mechanical	Delay when strand main drive tripped, reset and plant restarted
15-Aug-18	10:53:00	3m	Electrical	delay due to 1005 drooping out with no alarm
15-Aug-18	11:36:00	3m	Electrical	delay due to 1005 drooping out with no alarm
15-Aug-18	13:10:00	20m	Mechanical	Delay for pallet change due to hole South side
15-Aug-18	14:15:00	3m	Electrical	delay due to loss of water set point to mixer
16-Aug-18	01:12:00	31m	Mechanical	Pallet change (On 91 - Off 115)
16-Aug-18	06:00:00	12h 58m	Operational	Requirement stop as stockpile and Blast Furnace bunkers full.
17-Aug-18	19:15:00	8m	Mechanical	delay due to loss of mixer water
17-Aug-18	14:23:00	40m	Mechanical	Side wall fitted to pallet (no number in between 32 and 42)
17-Aug-18	17:11:00	20m	Mechanical	pallet change 149 off 130 on
17-Aug-18	19:36:00	6m	Mechanical	Delay to check and reset South bent beam, pallet 81 in area
17-Aug-18	20:20:00	4m	Operational	Delay to sinter through due to loss of temps
17-Aug-18	20:27:00	2m	Mechanical	delay due to loss of raw mix, mixer failed to come in
18-Aug-18	09:06:00	2m	Operational	windmtn pressure reached 150mbar
18-Aug-18	13:52:00	19m	Operational	1020 stop electrically ok, switched to test, exlerts slow to turn back to sequence revs turned up feeder away
18-Aug-18	14:20:00	8m	Operational	1016 con stopped over loaded, due to same dng off, left running 1015 con overloaded, force applied to 1014 con plant then restarted.
18-Aug-18	22:44:00	5m	Operational	stopped to sinter through after vanes closed for outlet suction 150mb
19-Aug-18	00:52:00	9m	Operational	stopped to sinter through after vanes closed for outlet suction 150mb
20-Aug-18	12:08:00	39m	Operational	E-stop activated, No alarm on I-fix
20-Aug-18	14:03:00	17m	Mechanical	Pallet change 45 off, 63 on
20-Aug-18	18:33:00	5m	Mechanical	North and south bent beam pallet 67 in area.
21-Aug-18	07:43:00	53m	Electrical	Comms/PLC fault
21-Aug-18	19:31:00	5m	Mechanical	North bent beam pallet 130 in area
23-Aug-18	01:28:00	1h 49m	Electrical	No power to DDV compressor, found fuse had blown
23-Aug-18	11:00:00	1h 52m	Operational	Requirement stop taken (due to stock pile and hi-line bunker levels)to carry out repairs to back plate scraper.
24-Aug-18	10:28:00	3h 22m	Operational	Requirement stop due to stock pile level.
24-Aug-18	16:19:00	9m	Electrical	Loss of GBL (0.9 tph figure froze when we weren't actually receiving anything)
24-Aug-18	00:44:00	7m	Mechanical	Delay due to loss of GBL and then strand temps
25-Aug-18	09:24:00	2h 2m	Operational	Stock pile full and high line full
26-Aug-18	20:36:00	1h 5m	Mechanical	Requirement stop taken to replenish ore bunkers after blender change
26-Aug-18	12:15:00	3m	Operational	Small stop to sinter through after loss of temps.
26-Aug-18	13:20:00	36m	Mechanical	cold crusher stopped, switched to test and reverse, found section of crash decking, same removed
26-Aug-18	16:15:00	12h 12m	Operational	No5 off due to issues.Bos related no timescale atow, lime belts under water along with plating pts

Signed on behalf of the operator
 Dated: 05-Oct-18

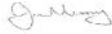


Iron Ore Sintering - Record of strand stoppages > 30 mi 30-Sep-18

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/ Unplanned	Reason
14-Aug-18	20:50:00	6m	Operational	loss of sintering temps
14-Aug-18	03:51:00	5m	Operational	loss of sintering temps
14-Aug-18	16:42:00	5m	Operational	trip activated on North side same reset
14-Aug-18	20:34:00	3m	Operational	North bent beam activated
15-Aug-18	04:04:00	3h 28m	Operational	Hi-line bunkers and Stockpile full
15-Aug-18	08:27:00	5m	Mechanical	Delay when strand main drive tripped, reset and plant restarted
15-Aug-18	10:53:00	3m	Electrical	delay due to 1005 dropping out with no alarm
15-Aug-18	11:36:00	3m	Electrical	delay due to 1005 dropping out with no alarm
15-Aug-18	13:10:00	20m	Mechanical	Delay for pallet change due to hole South side
15-Aug-18	14:15:00	3m	Electrical	delay due to loss of water set point to mixer.
16-Aug-18	01:12:00	31m	Mechanical	Pallet change (On 91 - Off 115)
16-Aug-18	06:00:00	12h 58m	Operational	Requirement stop as stockpile and Blast Furnace bunkers full.
17-Aug-18	19:15:00	8m	Mechanical	delay due to loss of mixer water
17-Aug-18	14:23:00	40m	Mechanical	Side wall fitted to pallet (no number in between 32 and 42)
17-Aug-18	17:11:00	20m	Mechanical	pallet change 143 off 130 on
17-Aug-18	19:38:00	6m	Mechanical	Delay to check and reset South bent beam, pallet 81 in area
17-Aug-18	20:20:00	4m	Operational	Delay to sinter through due to loss of temps
17-Aug-18	20:27:00	2m	Mechanical	delay due to loss of raw mix, mixer failed to come in
18-Aug-18	09:06:00	2m	Operational	windmain pressure reached 150mbar
18-Aug-18	13:52:00	19m	Operational	1020 stop electrically ok, switched to test, exciters slow to turn back to sequence revs turned up feeder away.
18-Aug-18	14:20:00	8m	Operational	1016 con stopped over loaded, due to same dust off, left running 1015 con overloaded, force applied to 1014 con plant then restarted.
18-Aug-18	22:44:00	5m	Operational	stopped to sinter through after vanes closed for outlet suction 150mb
19-Aug-18	00:52:00	9m	Operational	stopped to sinter through after vanes closed for outlet suction 150mb
20-Aug-18	12:08:00	38m	Operational	E-stop activated, No alarm on I-fix
20-Aug-18	14:03:00	17m	Mechanical	Pallet change 45 off, 63 on
20-Aug-18	18:33:00	5m	Mechanical	North and south bent beam pallet 57 in area.
21-Aug-18	07:43:00	53m	Electrical	Comms PLC fault
21-Aug-18	19:31:00	5m	Mechanical	North bent beam pallet 130 in area
23-Aug-18	01:28:00	1h 49m	Electrical	No power to DDV compressor, found fuse had blown
23-Aug-18	11:00:00	1h 52m	Operational	Requirement stop taken (due to stock pile and hi-line bunker levels)to carry out repairs to back plate scraper.
24-Aug-18	10:28:00	3h 22m	Operational	Requirement stop due to stock pile level.
24-Aug-18	16:19:00	9m	Electrical	Loss of GBL (0.9 tph figure froze when we weren't actually receiving anything)
24-Aug-18	09:44:00	7m	Mechanical	Delay due to loss of GBL and then strand temps
25-Aug-18	09:24:00	2h 2m	Operational	Stock pile full and high line full
26-Aug-18	20:38:00	1h 5m	Mechanical	Requirement stop taken to replenish ore bunkers after blender change
26-Aug-18	12:15:00	3m	Operational	Small stop to sinter through after loss of temps.
26-Aug-18	13:20:00	36m	Mechanical	cold crusher stopped, switched to test and reverse, found section of crash decking, same removed
26-Aug-18	16:15:00	12h 12m	Operational	No5 off due to issues.Bos related no timescale atow, lime belts under water along with plating pits

Signed on behalf of the operator
 Dated: 05-Oct-18



RELEASES INTO AIR

Form Sinter Operational Cont.

30-Sep-18

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

Iron Ore Sintering - Record of strand stoppages > 30 minutes				Reason
Date	Time	Duration (mins)	Planned/	
27-Aug-18	12:05:00	15m	Mechanical	1 x c/roller found in half
29-Aug-18	18:37:00	4m	Mechanical	mixer bearing temps alarm x 2 stopped mixer. plant stopped before raw mix hopper went empty.
29-Aug-18	05:28:00	27m	Mechanical	Pallet 55 off 131 on bars north/middle rear row
30-Aug-18	02:08:00	22m	Mechanical	Pallet No6 off No 8 On bars rear Row towards north
30-Aug-18	09:23:00	27m	Mechanical	Pallet change for hole. back row north side. 148 off and 9 on.
30-Aug-18	10:17:00	5h 25m	Operational	Requirement stop taken to carry out repairs to strand rail
30-Aug-18	16:47:00	5m	Mechanical	delay to reset strand main breaker due to tripping
31-Aug-18	02:35:00	5m	Operational	North and South bent beam activated due to high strand amps.
31-Aug-18	11:45:00	3h 12m	Operational	Requirement stop taken during which repair carried out to 1007 drive
31-Aug-18	16:03:00	5m	Mechanical	delay to check and reset strand main drive
31-Aug-18	16:12:00	7m	Mechanical	delay to check and reset strand main drive
01-Sep-18	07:39:00	5h 28m	Operational	Stockpile full - Blast Furnace Req
01-Sep-18	13:45:00	11m	Mechanical	North and south bent beams/strand drive tripped.
26-Aug-18	00:51:00	34m	Mechanical	Stop- 00:51 - 01:25 = Hole in pallet. Re-barred on strand as crane hoist cutting out. Pallet 95
02-Sep-18	09:36:00	18m	Operational	stopped to empty mixer and fill raw mix hopper
02-Sep-18	10:03:00	183h 12m	Planned Maintenance	planned maintenance
10-Sep-18	06:59:00	15m	Operational	product bin hit 91 and stopped 1025.
10-Sep-18	09:12:00	5m	Electrical	HSB stopped plant and 1009 failed to come in.
10-Sep-18	11:07:00	12m	Electrical	HSB stopped plant and 1009 failed to come in.
10-Sep-18	11:22:00	1m	Electrical	Electrical fault finding on HSB
10-Sep-18	11:27:00	10m	Electrical	HSB stopped plant and 1009 failed to come in.
10-Sep-18	14:27:00	44m	Mechanical	Mixer SWW support roller vibration stopped mixer. while plant on stop 1003 coupling checked.
10-Sep-18	15:14:00	9m	Mechanical	Running mixer checking vibrations. loss of raw mix
11-Sep-18	01:57:00	2h 55m	Mechanical	Delay to repair broken chain
11-Sep-18	06:20:00	1h 8m	Electrical	Product bin load cell problem
11-Sep-18	07:34:00	59m	Electrical	Product bin load cell problem
11-Sep-18	08:39:00	2m	Electrical	Product bin load cell problem
11-Sep-18	09:19:00	16m	Electrical	Product bin load cell problem
11-Sep-18	13:47:00	3m	Mechanical	Cold crusher stopped
11-Sep-18	17:57:00	3h 30m	Electrical	issues with SWGF Panel see SAP
11-Sep-18	23:36:00	24m	Operational	1066 pan feeder tripped on overload
12-Sep-18	08:54:00	40m	Electrical	Product bin hi-hi due to a load cell fault
12-Sep-18	11:13:00	2m	Operational	high temps on product belts. Visual check on conveyors.
12-Sep-18	11:51:00	2m	Electrical	Loss of raw mix. Mixer failed to start after hi-hi
12-Sep-18	11:56:00	30m	Operational	Stop to check cooler for possible hot sinter.
12-Sep-18	13:23:00	7m	Mechanical	Stop to sinter through after a pallet passed through with a large hole resulting in loss of suction / burn through, on the strand
12-Sep-18	14:18:00	2m	Operational	Stickers operating the limit.
12-Sep-18	14:56:00	20m	Mechanical	Pallet change (hole) 88 off 148 on

Signed on behalf of the operator
 Dated: 05-Oct-18



RELEASES INTO AIR

Form Sinter Operational Cont.

30-Sep-18

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/ Unplanned	Reason
12-Sep-18	06:44:00	18m	Mechanical	Pallet change (hole)
12-Sep-18	19:12:00	13m	Mechanical	inner dip rail wheel detector activated
13-Sep-18	13:10:00	10m	Operational	Portions of hot sinter
13-Sep-18	06:00:00	2h 0m	Operational	Recovering bunkers as per previous shift delay.
13-Sep-18	17:50:00	6m	Mechanical	Mixer swivel device at ultimate limit.
13-Sep-18	22:55:00	7h 55m	Mechanical	Denseveyor not cycling properly causing 1071 chain conveyor overload.
14-Sep-18	13:41:00	24m	Operational	Pallet Change
14-Sep-18	14:49:00	27m	Operational	South Fan Tripped
14-Sep-18	15:24:00	5h 56m	Electrical	North precip electrical cable tray fire
14-Sep-18	21:20:00	2h 57m	Electrical	Combustion Air fan Problems. Managed to get it going again.
15-Sep-18	02:15:00	31h 55m	Electrical	Combustion air fan problems. Currently fault finding, ongoing stop
16-Sep-18	15:26:00	1h 30m	Electrical	Mixer stopped and unable to restart.
16-Sep-18	17:36:00	6m	Operational	Stop to sinter through after loss of temps on the Strand.
10-Sep-18	02:35:00	14m	Planned Maintenance	Stop-Sinter through 2:35-2:49
10-Sep-18	04:20:00	45m	Operational	Stop-product bin and 1020 calibrated/spill point 04:20-05:05
10-Sep-18	06:05:00	30m	Mechanical	Stop-Pallet change 120 off 58 on 06:05-06:35
16-Sep-18	19:45:00	10m	Operational	Mixer Ultimate Limit activated/loss of raw mix
16-Sep-18	20:30:00	10m	Operational	Stop to sinter through loss of temps on strand.
16-Sep-18	21:20:00	9m	Operational	Mixer Ultimate Limit activated
17-Sep-18	01:19:00	5m	Operational	Mixer Ultimate Limit activated
17-Sep-18	10:51:00	5m	Operational	E/Stop activated in error. Cleaners in area at time.
17-Sep-18	12:05:00	6h 5m	Mechanical	1074 conv vacuumed out due to the denseveyor not being able to process enough dust through the system. Rappers on and fields switched off whilst emptying.
17-Sep-18	21:06:00	3m	Operational	Stop to sinter through on the strand.
17-Sep-18	22:41:00	7m	Operational	Stop to sinter through on the strand.
18-Sep-18	02:18:00	6m	Operational	Stop to sinter through on the strand, loss of temps after cleaning.
18-Sep-18	09:40:00	1h 31m	Electrical	Comms fault (data logger full) This stopped the south WG fan.
19-Sep-18	20:39:00	2h 0m	Mechanical	Stop to remove the blanks from the windmain, repair 1023 screen and restate the north WG fan and precip.
19-Sep-18	00:29:00	2m	Mechanical	Stop to adjust the bed hi-hi probe.
19-Sep-18	11:50:00	20m	Mechanical	Pallet change 53 off 149 on due to insulation piece and grate bars front row south side
19-Sep-18	14:35:00	2h 7m	Mechanical	Issues with de-dust chains stopping, material not being cleared, resulting in a build up on all chain conveyors, issues around compressor possible probes on denseveyor
20-Sep-18	00:07:00	2h 25m	Mechanical	Stop to vac out de dust Precip chains via 1074 with the de dust fan off.
20-Sep-18	03:00:00	7m	Operational	Denseveyor chute onto 1003 blocked soon after restart of fan.
20-Sep-18	08:32:00	4m	Operational	Trip activated scaffolders in area.
20-Sep-18	09:26:00	7m	Operational	Hot sinter temps
20-Sep-18	09:38:00	16m	Operational	Hot sinter temps.
20-Sep-18	15:40:00	4h 0m	Mechanical	1071 buried shear pin and bolt failing, end cover removed attempting to empty. This due to denseveyor cycling issues.
20-Sep-18	19:46:00	56m	Electrical	Plant stopped as de-dust fan would not start. Also combustion air fan low air flow stopping hood being lit.
20-Sep-18	20:47:00	32m	Mechanical	Comb air fan tripped.

Signed on behalf of the operator

Dated:

05-Oct-18

Dated:

30-Sep-18

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

Date	Time	Duration (mins)	Planned/ Unplanned	Reason
21-Sep-18	00:57:00	32m	Operational	Stopped to fit Large blank into South Precip
22-Sep-18	02:58:00	11h 18m	Mechanical	1021 conveyor ripped down middle, belt down to canvas in this area DRF to follow.
22-Sep-18	01:47:00	34m	Mechanical	Plant stopped just to drop denesvevor hopper down so that hi limit, light turned green, due to chains dropping out, hood tripped in error hood, hood failed on step 10 on restart.
22-Sep-18	14:25:00	5m	Mechanical	North bent beam activated
22-Sep-18	15:02:00	12m	Electrical	cooler wheel detector d/n rail entry outer
22-Sep-18	16:29:00	57m	Mechanical	wheel off pallet No 2 replaced with pallet No 88
23-Sep-18	00:42:00	48m	Mechanical	Pallet 22 off 74 on grate bars middle row. (Middle) delay extended due to slam shut x 2 air flow alarm
24-Sep-18	01:20:00	6m	Electrical	All Ore weighers deviated
24-Sep-18	01:32:00	7m	Mechanical	Mixer stopped out
24-Sep-18	11:37:00	5h 54m	Mechanical	Delay to carry out repairs to 1071 chain after denesvevor operation causing material back up.
25-Sep-18	11:44:00	10m	Mechanical	stopped to repair hole in pipe work
26-Sep-18	00:55:00	27m	Mechanical	pallet change for hole, 51 off 70 on.
26-Sep-18	07:41:00	35m	Mechanical	pallet 84 off and 45 on
26-Sep-18	09:01:00	8m	Operational	trip activated by cleaners
26-Sep-18	11:12:00	2m	Mechanical	mixer vibrations stopped mixer which then would not come in and resulted in loss of raw mix
27-Sep-18	19:06:00	32m	Mechanical	Pallet change for hole, 8 off and 128 on.
27-Sep-18	20:51:00	4m	Operational	delay to sinter through due to loss of strand temps
27-Sep-18	05:42:00	10h 43m	Planned Maintenance	planned maintenance for repairs to North fields
28-Sep-18	23:38:00	7m	Operational	trio activated
29-Sep-18	03:34:00	7h 0m	Operational	no room under stock pile
29-Sep-18	11:58:00	2m	Mechanical	Mixer stopped. Loss of raw mix
29-Sep-18	14:45:00	1h 15m	Operational	No water on 1/E of 1021
30-Sep-18	00:23:00	28m	Mechanical	pallet change 22 off / 35on.
30-Sep-18	05:22:00	8m	Mechanical	Crusher stopped hard sinter
30-Sep-18	06:02:00	21m	Mechanical	Stop 06:02 - 06:23 hot sinter breaker stopped.
21-Sep-18	08:13:00	2h 27m	Electrical	Stop = 08:13 - 10:40 taken blank out of south windmain after issues with pressure indicator.
21-Sep-18	17:23:00	31m	Mechanical	Stop = 17:23 - 17:54 pallet change 128 off 55 on

Signed on behalf of the operator
 Date: 05-Oct-18

Form Sinter Operational Cont.