

RELEASES TO AIR

Operational summary for quarter ending 31/06/2017

Operator: Tata Steel UK Ltd

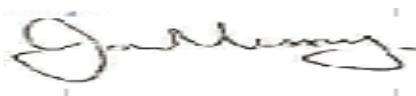
Location: Port Talbot Works

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	9811		
	Month 2	13100		
	Month 3	13041		
A13A BOS convertor 2 gas flare	Month 1	19621		
	Month 2	26200		
	Month 3	26082		
A33 Blast furnace gas flare stack no.1	Month 1	38750		
	Month 2	61299		
	Month 3	0		
A33C Blast furnace gas flare stack no.2	Month 1	104495		
	Month 2	90213		
	Month 3	0		
A33A Blast furnace gas main number 4 bleeder	Month 1		35	
	Month 2		51	
	Month 3		49	
A33B Blast furnace gas main number 5 bleeder	Month 1		432	
	Month 2		611	
	Month 3		358	
A59 Coke oven gas triple flare	Month 1	32141		
	Month 2	111844		
	Month 3	15583		
Blast furnaces 4 and 5	Month 1			1532342
	Month 2			1507163
	Month 3			1384708
Coke ovens	Month 1			564218
	Month 2			558643
	Month 3			535763
BOS Plant	Month 1			225842
	Month 2			220834
	Month 3			185549

Signed on behalf of the Operator



Dated 09/10/17

Form Installation gas

WASTE PRODUCTION

Operational summary for quarter ending 31/06/2017

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

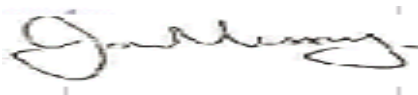
Permit: BL7108

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	Jul	34694	2389					
	Aug	33327	2574					
	Sep	40988	3243					
Iron and steel installation	Jul			3.8	571			
	Aug			6.8	1382			
	Sep			5.7	1750			
BF4 tapholes	Jul					35135		
	Aug					36110		
	Sep					29749		
BF5 tapholes	Jul					38416		
	Aug					35618		
	Sep					33161		
BF5	Jul							0.00
	Aug							0.00
	Sep							0.00
Coke ovens	Jul						226	**
	Aug						204	**
	Sep						178	**

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

** WID compliant Oil.

Signed on behalf of the Operator



Dated 09/10/17

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)	2208	2208	1186	2208	2201	1049	2153
Mean load (%MCR)	49.9	54.6	28.1	90.0	84.2	95.1	65.4
Mean flue gas flow (Nm ³ /hr)	76520	71325	38514	218607	233745	76626	194443
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)	17.22	17.22	17.22	17.22	17.22	17.22	
Sulphur content (g/m ³)	3.57	3.57	3.57	3.57	3.57	3.57	
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 11/10/17

Form LCPD Operating 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: 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	02-Oct-16 11:10	04-Sep-17 10:34	08-Aug-17 10:19:00	08-Aug-17 10:09:00		
Flowrate (Nm3/hr)	91802	78709	190,028	214,023		
NOx measured** conc. (mg/Nm3)	180 (+/-9.7)	54 (+/-2.9)	104 (+/-3.6)	117 (+/-4.1)		
NOx limit (mg/NM3)	300 BFG/COG	300 BFG/COG	300 BFG/COG	300 BFG/COG		
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	0		29	86		
Fuel usages over the sampling period						
Natural gas (%)	1%	0%	10%	9%		
BF gas (%)	69%	41%	70%	79%		
Coke oven gas (%)	30%	59%	20%	12%		
Heavy fuel oil (%)	0%	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

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

Signed on behalf of the Operator



Dated 17/10/17

Form LCPD 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: A50A/A50B, A51, A52A, A52B, A53 & A62

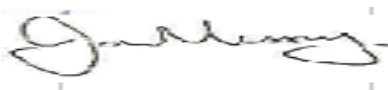
SULPHUR DIOXIDE - SO ₂ (DISCONTINUOUS MONITORING)						
Release Point	A50A&B Service 4&5	A51 A5	A52A No.6	A52B No.7	A53 Mitchell	A62 No.3
Time and date of sampling	02-Oct-16 11:10	04-Sep-17 10:34	08-Aug-17 10:19:00	08-Aug-17 10:09:00		
Flowrate (Nm ³ /hr)	91802	78709	190,028	214,023		
SO ₂ measured conc. (mg/Nm ³)	547 (+/-28.6)	113 (+/- 5.4)	120 (+/-3.9)	153 (+/-5.0)		
SO ₂ limit (mg/NM ³)	800 BFG/COG	800 BFG/COG	800 BFG/COG	800 BFG/COG		
Sampling method used	BS 6069	BS 6069	BS 6069	BS 6069		
Analytical method used	EC*	EC*	EC*	EC*		
Continuous hourly monitoring result over the period	0		99	102		
Fuel usages over the sampling period						
Natural gas (%)	1%	0%	10%	9%	4%	
BF gas (%)	69%	41%	70%	79%	80%	
Coke oven gas (%)	30%	59%	20%	12%	5%	
Heavy fuel oil (%)	0%	0%	0%	0%	0%	

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

* EC - electrochemical cell

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

Signed on behalf of the Operator



Dated

17/10/17

Form LCPD DCM SO₂

RELEASES INTO AIR

Operational summary for the six months to 31/12/2016

Operator: Tata Steel Strip Products UK

Location: Port Talbot Works

Permit: BL7108 / RP3730BV

Release Points: A39

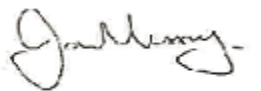
PARTICULATE MATTER (DISCONTINUOUS MONITORING)		
Release Point	A39 HY1	A39 HY2
Time and date of sampling	14-Mar-17 11:32	05-Sep-16 09:49
Flowrate (Nm3/hr)	28970	29051
Particulate measured conc. (mg/Nm3)	34	56
Particulate limit (mg/Nm3)	25	25
Sampling method used	BS EN 13284	BS EN 13284
Analytical method used	Gravimetric	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 17/10/2017

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	J	0	27776	45846	4211		77832
	A	0	23664	45737	5873		75274
	S	0	33693	32354	6796		72843
A50B Service Boiler 5	J	0	44229	47599	3119		94947
	A	0	25176	46094	5575		76845
	S	0	36951	34932	3713		75596
A51 Boiler A5	J	0	0	0	0	0	0
	A	0	7895	32495	2915	156	43461
	S	0	0	15288	1287	0	16575
A52A Boiler 6	J	0	78168	241152	15861	37951	373132
	A	2013	51313	246133	26094	36107	361660
	S	0	83023	221064	25787	15529	345403
A52B Boiler 7	J	0	60878	232864	13899	36644	344285
	A	1054	39092	241154	23527	35286	340113
	S	0	71282	214878	22434	15019	323612
A53 Mitchell	J	0	7788	110988	1951		120727
	A	0	3038	46319	1161		50518
	S	10	7244	110437	1995		119686
A62 Boiler 3	J			156131	11483	0	167614
	A			164849	14608	0	179457
	S			134968	19500	0	154469
Total	J	0	218839	834580	50523	74594	1178537
	A	3067	150178	822780	79755	71549	1127329
	S	10	232193	763919	81512	30548	1108183

Signed on behalf of the Operator



Dated 03/10/17

Form LCPD Fuels

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

Operator: Tata Steel UK Ltd

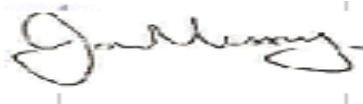
Location: Port Talbot Works

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	Jul	5.3	48.6	18/07/17 13:00	0.3	5.7	100%
	Aug	4.3	14.3	13/08/17 12:00	0.2	3.1	100%
	Sep	3.1	13.3	06/09/17 17:00	0.1	2.6	100%
A51 Boiler A5	Jul	0.0	0.0	OFF	0.0	0.0	100%
	Aug	4.7	28.5	11/08/17 17:00	0.0	4.4	100%
	Sep	1.0	55.3	11/09/17 11:00	-0.1	2.8	100%
A52A Boiler 6	Jul	1.2	2.6	08/07/17 06:00	0.9	0.2	100%
	Aug	1.7	37.9	31/08/17 18:00	0.9	3.3	100%
	Sep	1.6	23.8	01/09/17 00:00	1.2	1.2	100%
A52B Boiler 7	Jul	0.4	2.6	10/07/17 04:00	0.0	0.3	100%
	Aug	0.7	21.3	31/08/17 21:00	0.0	1.8	100%
	Sep	0.7	41.9	16/09/17 18:00	0.0	1.7	100%
A53 Mitchell	Jul	2.4	5.0	03/07/17 12:00	1.1	0.5	100%
	Aug	1.2	9.6	13/08/17 23:00	0.0	1.5	100%
	Sep	0.0	0.0	OFF	0.0	0.0	100%

Signed on behalf of the Operator



Dated 11/10/17

Form LCPD CEM Parts

RELEASES INTO AIR

Operational summary for quarter ending

31/06/2017

Operator: Tata Steel UK Ltd

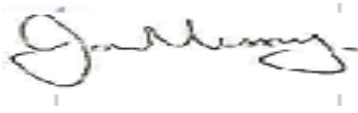
Location: Port Talbot Works

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	Jul	108.4	211.6	18/07/2017 18:00	39.0	25.1	100%
	Aug	108.1	506.1	31/08/2017 16:00	33.7	47.8	100%
	Sep	90.6	186.2	01/09/2017 0:00	26.6	19.5	40%
A52B Boiler 7	Jul	66.3	215.9	10/07/2017 7:00	24.7	25.8	100%
	Aug	53.2	265.4	31/08/2017 19:00	23.1	32.2	100%
	Sep	86.9	290.2	17/09/2017 23:00	0.0	44.3	100%
A50A & A50B Service Boilers	Jul	231.0	693.2	11/07/2017 15:00	57.3	87.6	100%
	Aug	253.3	605.4	07/08/2017 6:00	38.4	90.3	100%
	Sep	287.8	628.5	15/09/2017 14:00	28.6	105.7	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	Jul	207.7	329.1	19/07/2017 8:00	44.6	52.1	100%
	Aug	151.8	635.1	31/08/2017 16:00	46.0	73.2	100%
	Sep	140.4	237.7	12/09/2017 11:00	65.5	37.5	40%
A52B Boiler 7	Jul	167.0	413.1	10/07/2017 7:00	54.0	59.2	100%
	Aug	125.1	765.9	31/08/2017 19:00	50.4	82.8	100%
	Sep	152.3	813.2	17/09/2017 2:00	0.0	69.4	100%
A50A & A50B Service Boilers	Jul	268.8	1426.5	11/07/2017 21:00	8.3	243.8	100%
	Aug	261.2	1155.9	07/08/2017 7:00	2.2	236.1	100%
	Sep	309.6	1095.7	01/09/2017 3:00	6.3	229.7	100%

Signed on behalf of the Operator



Dated 11/10/17

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 / BL7108IM (V009)

Release Points: A50, A52A & A52B

OXIDES OF NITROGEN (mg/Nm3) - CONTINUOUS EMISSIONS MONITORING							
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A52B Boiler 7	Jul	66.3	215.9	10/07/2017 7:00	24.7	25.8	100%
	Aug	53.2	265.4	31/08/2017 19:00	23.1	32.2	100%
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A50A & A50B Service Boilers	Jul	231.0	693.2	11/07/2017 15:00	57.3	87.6	100%
	Aug	253.3	605.4	07/08/2017 6:00	38.4	90.3	100%
	Sep	287.8	628.5	15/09/2017 14:00	28.6	105.7	100%
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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
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	Aug	151.8	635.1	31/08/2017 16:00	46.0	73.2	100%
	Sep	140.4	237.7	12/09/2017 11:00	65.5	37.5	40%
A52B Boiler 7	Jul	167.0	413.1	10/07/2017 7:00	54.0	59.2	100%
	Aug	125.1	765.9	31/08/2017 19:00	50.4	82.8	100%
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A50A & A50B Service Boilers	Jul	268.8	1426.5	11/07/2017 21:00	8.3	243.8	100%
	Aug	261.2	1155.9	07/08/2017 7:00	2.2	236.1	100%
	Sep	309.6	1095.7	01/09/2017 3:00	6.3	229.7	100%

Signed on behalf of the Operator

Dated 11/10/17

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

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

[illegible]

Signed on behalf of the Operator

Dated 11/10/17

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/Nm ³)	40	500	500	
Measured conc. according to condition 10.1.3b	51 (+/- 4.6)	499 (+/- 51.7)	186 (+/- 19.4)	6250 (+/- 650.5)
Measured oxygen content (%)	16.3	16.3	16.3	16.3
Measured conc. according to condition 10.1.3a (17%O ₂)	27	423	158	5299
Sampling method used	BS EN 13284	BS 6069	ISO 10849	BS ISO 12039
Analytical method used	Gravimetric	*EC	*EC	*EC
Date of sampling	12-Jul-17	12-Jul-17	12-Jul-17	12-Jul-17
Sample start time	11:00 -	11:00	11:00	11:00
Sample end time	12:00	12:00	12:00	12:00
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	18.9			
Process status at the time of sampling				
Mean sulphur content of sinter blend in use (%)	0.043	0.043	0.043	0.043
Reverts content of sinter blend in use (%)	11.5	11.5	11.5	11.5
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 03/10/17

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	0.2	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	5.3	5.3	0.0	45.2	35.7	5.7	0.0	4.7	4.7	0.0	10.7	9.7	3.2	5.6	0.1	0.1	0.00	0.2	0.1	0.1	0.12
August	6.0	6.0	4.2	23.8	17.5	1.2	0.3	6.1	6.1	1.3	10.4	9.5	1.3	5.3	0.1	0.1	0.12	0.3	0.1	0.1	0.11
September	7.6	7.6	4.1	30.3	31.2	0.0	0.3	7.2	7.2	1.6	9.8	9.1	0.0	6.8	0.1	0.1	0.04	0.3	0.1	0.0	0.13
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 05/10/17

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 - NO _x (DISCONTINUOUS MONITORING)								
Release Point	A6	A7	A30	A31	A32	A34A	A34B	A39 #
Time and date of sampling	23-Aug-17 09:44	22-Aug-17 09:51				19-Sep-17 11:12	18-Sep-17 10:29	05-Sep-17 09:25
Flowrate (Nm ³ /hr)	225272	139800				288248	309781	29,051
NO _x measured conc.(mg/Nm ³) **	42 (+/-1.6)	26 (+/-1.2)				734 (+/- 121.8)	531 (+/-23.0)	3 (+/-0.1)
Oxygen content (%)	2.5							
NO _x limits (mg/Nm ³)	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 (%)	17%	0%				86%	53%	100%
BF gas (%)	73%	97%						0%
Coke oven gas (%)	8%	3%				14%	47%	
BOS Gas (%)	3%							

* 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 03/10/17

Form I&S 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 / NP3938GZ

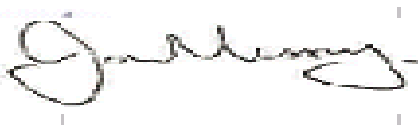
Release Points: A6, A7, A34A & A34B

SULPHUR DIOXIDE - SO ₂ (DISCONTINUOUS MONITORING)					
Release Point	A6	A7	A34A	A34B	A39 #
Time and date of sampling	23-Aug-17 09:44	22-Aug-17 09:51	19-Sep-17 11:12	18-Sep-17 10:29	05-Sep-17 09:25
Flowrate (Nm ³ /hr)	225272	139800	288248	309781	29,051
SO ₂ measured conc.(mg/Nm ³)	50.2 (+/- 1.8)	13 (+/- 0.9)	26 (+/-6.5)	368 (+/-15.8)	0 (+/- 0.0)
SO ₂ limits (mg/Nm ³)	200	200	1400	1400	260
Sampling method used	BS6069	BS6069	BS6069	BS6069	BS6069
Analytical method used	EC *	EC *	EC *	EC *	EC *
Continuous hourly monitoring result over the period					
Fuel usages over the sampling period					
Natural gas (%)	17%	0%	86%	53%	100%
BF gas (%)	73%	97%			0%
Coke oven gas (%)	8%	3%	14%	47%	
BOS Gas (%)	3%				

* EC - electrochemical cell

A39 has a 6 monthly monitoring requirement

Signed on behalf of the Operator



Dated 03/10/17

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	A39 # (6 Monthly)	A46* (annual)
Parameter	Chloride (as HCl)	Carbon monoxide			Oxides of nitrogen
Time and date of sampling	24-Aug-17 10:20	23-Aug-17 09:44	22-Aug-17 09:51	05-Sep-17 09:25	- -
Flowrate (Nm3/hr)	18,335	225272	139800	29,051	-
Measured conc.(mg/Nm3)	0.2 (+/-0.1)	7497 (+/-261.4)	7142 (+/- 234.8)	1444 (+/-30.8)	-
Emission limits (mg/Nm3)	5				
Sampling method used	Isokinetic	BS ISO 12039	BS ISO 12039	BS ISO 12039	ISO 10849
Analytical method used	BSEN1911	EC *	EC *	EC *	EC *
Fuel usages over the sampling period					
Natural gas (%)		17%	0%		
BF gas (%)		73%	97%		
Coke oven gas (%)		8%	3%		
BOS Gas (%)		3%			

* 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 04/10/17



Form I&S DCM Misc

[illegible]

RELEASES INTO AIR

Operational summary for quarter ending 31/06/2017

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

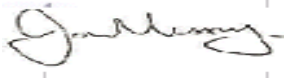
Permit: BL7108

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

PARTICULATE MATTER (mg/Nm ³) - 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	2.6	0.1	5.2	0.0	0.2	2.8	100%	100%
	Aug		3	2.9	0.1	3.2	2.6	0.1	3.0	100%	100%
	Sep		3	2.8	0.1	4.0	2.6	0.2	3.1	100%	100%
A8B	Jul	15 Daily mean	4	2.3	0.4	9.2	1.9	0.7	6.4	100%	100%
	Aug		8	2.6	0.9	26.3	2.0	1.6	3.3	100%	100%
	Sep		4	2.0	0.5	10.4	1.7	0.7	3.0	100%	100%
A9	Jul	15 Daily mean	2	0.0	0.5	8.6	0.7	1.3	0.2	100%	100%
	Aug		5	0.0	1.6	10.2	0.1	1.9	0.6	100%	100%
	Sep		5	0.0	1.3	13.5	1.0	1.6	0.5	100%	100%
A2*	Jul	30 Daily mean	49	0.0	11.4	287.0	0.0	19.3	25.3	100%	100%
	Aug		47	0.0	18.4	201.0	0.0	26.1	18.0	100%	100%
	Sep		90	16.7	16.0	176.7	0.0	27.7	40.5	100%	100%
A10	Jul	15 Daily mean	9	0.7	1.9	14.0	1.9	3.0	3.5	100%	100%
	Aug		21	1.8	4.2	54.4	2.5	9.3	9.3	100%	100%
	Sep		21	1.8	4.2	54.4	2.5	9.3	9.3	100%	100%
A14	Jul	15 Daily mean	12	1.9	2.6	56.3	3.1	9.7	4.4	100%	100%
	Aug		9	0.0	3.5	17.7	0.0	6.3	4.0	100%	100%
	Sep		12	1.9	2.6	56.3	3.1	9.7	4.4	100%	100%
A15	Jul	15 Daily mean	16	1.8	3.9	48.4	2.7	9.1	4.5	100%	100%
	Aug		4	1.7	0.7	10.7	3.2	1.4	3.0	100%	100%
	Sep		4	1.7	0.7	10.7	3.2	1.4	3.0	100%	100%
A16	Jul	15 Daily mean	8	1.4	1.7	23.0	2.0	4.1	2.9	100%	100%
	Aug		6	2.6	0.8	14.0	4.2	1.9	3.7	100%	100%
	Sep		6	2.6	0.8	14.0	4.2	1.9	3.7	100%	100%

*A2 ELV discussed with NRW as derogation

Signed on behalf of the Operator



Dated 02/10/17

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

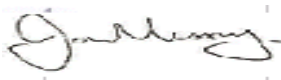
Permit: BL7108 / RP3730BV / BL7108IM (V009)

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	1.1	0.2	1.9	14.0	0.5	0.7	0.6	100%	100%
	May	Daily mean	1.4	0.3	4.2	54.4	0.3	3.0	0.6	100%	100%
	Jun		1.2	0.5	2.4	19.5	0.7	0.5	0.7	75%	75%
A63	Apr	25	Inconsistent data during the period - to be investigated.								
	May	Hourly mean									
	Jun										

Signed on behalf of the Operator

Dated 03/10/17



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	517			
Iron & Steel	690	1.8	329	1568
Total	1208	1.8	329	1568

Signed on behalf of the Operator

Dated 12/10/17



Form KPI

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/Nm ³)	40	500	500	
Measured conc. according to condition 10.1.3b	51 (+/- 4.6)	499 (+/- 51.7)	186 (+/- 19.4)	6250 (+/- 650.5)
Measured oxygen content (%)	16.3	16.3	16.3	16.3
Measured conc. according to condition 10.1.3a (17%O ₂)	27	423	158	5299
Sampling method used	BS EN 13284	BS 6069	ISO 10849	BS ISO 12039
Analytical method used	Gravimetric	*EC	*EC	*EC
Date of sampling	12-Jul-17	12-Jul-17	12-Jul-17	12-Jul-17
Sample start time	11:00 -	11:00	11:00	11:00
Sample end time	12:00	12:00	12:00	12:00
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	18.9			
Process status at the time of sampling				
Mean sulphur content of sinter blend in use (%)	0.043	0.043	0.043	0.043
Reverts content of sinter blend in use (%)	11.5	11.5	11.5	11.5
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 03/10/17

RELEASES INTO AIR

Operational Summary for the month Aug-2017

Operator: Tata Steel UK Ltd

Permit: BL7108 / RP3730BV

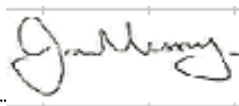
Location: Port Talbot Works

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-Aug-17	66	100%	100%	26%	0.037	N/A	8.81%	44	73	44	16	16	91	44	0	25
02-Aug-17	89	100%	100%	1%	0.034	N/A	7.93%	47	63	46	33	9	99	47	27	15
03-Aug-17	85	100%	100%	0%	0.034	N/A	7.93%	57	86	58	46	14	174	57	40	27
04-Aug-17	76	100%	100%	13%	0.034	N/A	7.93%	57	75	57	43	9	114	57	39	18
05-Aug-17	51	100%	100%	40%	0.034	N/A	7.93%	69	121	69	41	25	177	69	8	45
06-Aug-17	88	100%	100%	0%	0.039	N/A	6.54%	46	67	46	37	9	96	46	34	13
07-Aug-17	89	100%	100%	80%	0.039	N/A	6.54%	22	57	25	0	25	71	22	0	28
08-Aug-17	66	100%	100%	73%	0.039	N/A	6.54%	45	90	41	0	33	215	45	0	48
09-Aug-17	89	100%	100%	100%	0.039	N/A	6.54%	72	105	72	51	18	157	72	53	25
10-Aug-17	86	100%	100%	100%	0.039	N/A	6.66%	69	98	68	54	14	137	69	47	21
11-Aug-17	83	100%	100%	100%	0.039	N/A	6.66%	83	110	84	59	18	213	83	44	43
12-Aug-17	86	100%	100%	100%	0.039	N/A	6.66%	62	72	61	46	8	84	62	46	11
13-Aug-17	65	100%	100%	100%	0.039	N/A	6.66%	80	139	81	48	22	239	80	26	46
14-Aug-17	84	100%	100%	100%	0.039	N/A	6.66%	68	95	66	52	12	130	68	47	17
15-Aug-17	81	100%	100%	100%	0.035	0.022	7.55%	88	110	87	61	15	163	88	52	27
16-Aug-17	85	100%	100%	53%	0.035	0.022	7.55%	98	144	100	64	26	236	98	35	46
17-Aug-17	86	100%	100%	83%	0.035	0.022	7.55%	78	111	75	47	21	182	78	45	30
18-Aug-17	73	100%	100%	85%	0.035	0.022	7.55%	61	100	62	29	16	147	61	0	32
19-Aug-17	49	100%	100%	88%	0.034	0.027	7.18%	56	89	59	0	28	135	56	0	42
20-Aug-17	64	100%	100%	57%	0.034	0.027	7.18%	42	65	42	5	15	95	42	0	22
21-Aug-17	79	100%	100%	6%	0.034	0.027	7.18%	57	109	55	33	22	141	57	28	28
22-Aug-17	77	100%	100%	6%	0.034	0.027	7.18%	71	101	71	51	13	195	71	38	31
23-Aug-17	72	100%	100%	17%	0.031	0.012	7.15%	60	88	61	42	12	120	60	35	18
24-Aug-17	11	100%	100%	82%	0.031	0.012	7.15%	45	179	41	0	55	276	45	0	88
25-Aug-17	68	100%	100%	8%	0.031	0.012	7.15%	54	149	58	35	28	157	54	34	30
26-Aug-17	79	100%	100%	1%	0.031	0.012	7.15%	40	55	40	33	7	66	40	32	8
27-Aug-17	62	100%	100%	26%	0.031	0.012	7.15%	47	83	49	20	16	151	47	6	28
28-Aug-17	78	100%	100%	2%	0.031	0.012	7.15%	34	38	33	24	3	42	34	25	4
29-Aug-17	72	100%	100%	11%	0.031	0.012	7.40%	47	87	46	29	19	140	47	15	25
30-Aug-17	85	100%	100%	0%	0.031	0.012	7.40%	46	58	44	32	7	63	46	29	10
31-Aug-17	64	100%	100%	96%	0.031	0.012	7.40%	47	117	71	50	18	147	72	19	27
Month ave	74	100%	100%	50%	0.03	0.02	0.1	58	-	59	-	-	-	59	-	-
Month max.	89	-	-	-	0.04	0.03	0.1	98	179	-	-	-	276	-	-	-
Limit	-	-	-	-	0.06	-	-	40	-	-	-	-	-	-	-	-

* No data available.

Signed on behalf of the Operator



Dated 16/10/2017

Form Sinter CEMS

RELEASES INTO AIR

Operational Summary for the month Jul-2017

Operator: Tata Steel UK Ltd

Permit: BL7108 / RP3730BV

Location: Port Talbot Works

Release Point: A1

Day	% max throughput	% data capture	% EP availability	% UJT availability	Sinter Blend			Daily average	Particulate Matter (mg/m3)							
					Mean sulphur % w/w	Mean chloride % w/w	Mean reverts % w/w		4 hour rolling average				Hourly average			
									Maximum	Mean	Minimum	Standard deviation	Maximum	Mean	Minimum	Standard deviation
01-Jul-17	64	100%	100%	93%	0.053	0.017	10.10%	49	73	51	34	13	89	49	23	19
02-Jul-17	66	100%	100%	0%	0.042	0.028	11.98%	48	61	48	40	7	72	48	31	11
03-Jul-17	51	100%	100%	20%	0.042	0.028	11.98%	33	52	33	7	12	69	33	0	16
04-Jul-17	58	100%	100%	5%	0.042	0.028	11.98%	48	58	47	31	9	102	48	27	19
05-Jul-17	10	100%	100%	83%	0.042	0.028	11.98%	23	80	16	0	23	301	23	0	62
06-Jul-17	49	100%	100%	70%	0.042	0.028	11.98%	41	190	50	8	52	264	41	0	60
07-Jul-17	59	100%	100%	100%	0.042	0.028	11.98%	11	33	12	0	12	47	11	0	14
08-Jul-17	68	100%	100%	100%	0.043	0.016	11.48%	41	80	37	0	33	98	41	0	36
09-Jul-17	64	100%	100%	100%	0.043	0.016	11.48%	43	85	44	27	17	113	43	10	21
10-Jul-17	65	100%	100%	100%	0.043	0.016	11.48%	50	79	50	37	12	153	50	16	26
11-Jul-17	59	100%	100%	100%	0.043	0.016	11.48%	35	64	36	16	14	131	35	0	23
12-Jul-17	51	100%	100%	100%	0.043	0.016	11.48%	33	49	35	19	8	70	33	0	17
13-Jul-17	53	100%	100%	100%	0.041	0.02	10.95%	45	79	42	0	23	101	45	0	28
14-Jul-17	70	100%	100%	79%	0.041	0.02	10.95%	40	70	42	26	13	86	40	21	18
15-Jul-17	71	100%	100%	97%	0.041	0.02	10.95%	38	60	39	23	10	76	38	22	16
16-Jul-17	69	100%	100%	100%	0.041	0.02	10.95%	37	48	36	23	7	78	37	6	17
17-Jul-17	67	100%	100%	70%	0.041	0.02	10.95%	39	62	40	27	12	84	39	19	15
18-Jul-17	74	100%	100%	73%	0.038	0.014	12.25%	72	103	70	50	13	195	72	39	32
19-Jul-17	67	100%	100%	74%	0.038	0.014	12.25%	81	105	81	64	12	170	81	56	27
20-Jul-17	65	100%	100%	24%	0.038	0.014	12.25%	54	86	56	39	15	125	54	33	22
21-Jul-17	58	100%	100%	20%	0.038	0.014	12.25%	57	111	59	18	24	154	57	0	37
22-Jul-17	57	100%	100%	37%	0.037	N/A	10.61%	48	136	46	0	37	246	48	0	55
23-Jul-17	62	100%	100%	6%	0.037	N/A	10.61%	48	61	47	34	7	115	48	11	22
24-Jul-17	64	100%	100%	1%	0.037	N/A	10.61%	55	93	55	38	16	178	55	27	30
25-Jul-17	54	100%	100%	19%	0.037	N/A	10.61%	38	57	39	9	13	84	38	0	22
26-Jul-17	66	100%	100%	2%	0.037	N/A	10.61%	47	94	47	31	19	160	47	27	30
27-Jul-17	19	100%	100%	63%	0.037	N/A	10.61%	29	106	27	0	33	210	29	0	49
28-Jul-17	65	100%	100%	0%	0.037	N/A	8.81%	44	71	46	30	10	84	44	26	16
29-Jul-17	62	100%	100%	3%	0.037	N/A	8.81%	52	70	50	33	11	85	52	27	15
30-Jul-17	64	100%	100%	1%	0.037	N/A	8.81%	44	67	44	33	10	90	44	31	14
31-Jul-17	78	100%	100%	96%	0.037	N/A	8.81%	44	106	61	37	21	146	62	34	24
Month ave	59	100%	100%	55%	0.04	0.02	0.1	44	-	44	-	-	-	44	-	-
Month max.	78	-	-	-	0.05	0.03	0.1	81	190	-	-	-	301	-	-	-
Limit	-	-	-	-	0.06	-	-	40	-	-	-	-	-	-	-	-

* No data available.

Signed on behalf of the Operator

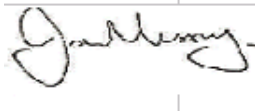
Dated 16/10/2017

Form Sinter CEMS

Liquid Iron Plating Operations (Iron Plating Pit)			
Date	Time	Tonnes	Reason
07/07/17	10:04	247	Metallurgy Reasons
03/07/17	14:34	294	Metallurgy Reasons
03/07/17	13:53	184	Metallurgy Reasons
22/07/17	03:09	228	Metallurgy Reasons
21/07/17	23:14	247	Metallurgy Reasons
21/07/17	21:29	228	Metallurgy Reasons
21/07/17	20:05	190	Metallurgy Reasons
13/07/17	07:25	228	Metallurgy Reasons
13/07/17	06:44	294	Metallurgy Reasons
12/07/17	20:59	180	Metallurgy Reasons
22/08/17	05:03	247	Metallurgy Reasons
22/08/17	02:25	273	Metallurgy Reasons
22/08/17	01:02	228	Metallurgy Reasons
11/08/17	08:20	228	Metallurgy Reasons
31/07/17	20:31	225	Metallurgy Reasons
Total		3363	

Signed on behalf of the Operator

Dated 29/09/17



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

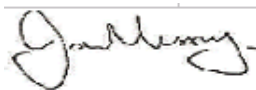
Permit: BL7108

Release Points: Iron plating continued

Liquid Iron Plating Operations (Iron Plating Pit)			
Date	Time	Tonnes	Reason
31/07/17	20:10	230	Metallurgy Reasons
30/07/17	02:56	180	Metallurgy Reasons
27/07/17	14:15	190	Metallurgy Reasons
29/08/17	04:02	240	Metallurgy Reasons
26/08/17	15:55	217	Metallurgy Reasons
26/08/17	14:48	228	Metallurgy Reasons
25/08/17	05:04	217	Metallurgy Reasons
25/08/17	04:29	228	Metallurgy Reasons
24/08/17	19:34	273	Metallurgy Reasons
24/08/17	18:40	228	Metallurgy Reasons
22/08/17	19:11	228	Metallurgy Reasons
22/08/17	18:13	228	Metallurgy Reasons
22/08/17	05:37	206	Metallurgy Reasons
09/09/17	15:24	178	Metallurgy Reasons
09/09/17	04:30	217	Metallurgy Reasons
09/09/17	03:47	237	Metallurgy Reasons
07/09/17	20:18	218	Metallurgy Reasons
07/09/17	18:08	171	Metallurgy Reasons
07/09/17	17:01	282	Metallurgy Reasons
07/09/17	16:01	228	Metallurgy Reasons
07/09/17	14:44	190	Metallurgy Reasons
07/09/17	13:17	217	Metallurgy Reasons
17/09/17	16:34	294	Metallurgy Reasons
17/09/17	16:19	116	Metallurgy Reasons
17/09/17	15:07	237	Metallurgy Reasons
16/09/17	23:18	285	Metallurgy Reasons
16/09/17	08:04	180	Metallurgy Reasons
16/09/17	07:08	161	Metallurgy Reasons
14/09/17	20:26	256	Metallurgy Reasons
09/09/17	18:37	228	Metallurgy Reasons
09/09/17	17:35	263	Metallurgy Reasons
09/09/17	16:46	153	Metallurgy Reasons
21/09/17	09:34	237	Metallurgy Reasons
21/09/17	08:40	228	Metallurgy Reasons
21/09/17	06:09	194	Metallurgy Reasons
21/09/17	06:05	180	Metallurgy Reasons
19/09/17	22:19	228	Metallurgy Reasons
19/09/17	21:22	228	Metallurgy Reasons
18/09/17	03:57	218	Metallurgy Reasons
17/09/17	20:17	232	Metallurgy Reasons
Total		8749	

Signed on behalf of the Operator

Dated 29/09/17



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
17/09/17	18:45	284	Metallurgy Reasons
17/09/17	17:30	242	Metallurgy Reasons
17/09/17	16:34	294	Metallurgy Reasons
17/09/17	16:19	116	Metallurgy Reasons
17/09/17	15:07	237	Metallurgy Reasons
16/09/17	23:18	285	Metallurgy Reasons
22/09/17	21:56	180	Metallurgy Reasons
22/09/17	18:38	228	Metallurgy Reasons
22/09/17	07:20	268	Metallurgy Reasons
22/09/17	04:49	185	Metallurgy Reasons
21/09/17	09:34	237	Metallurgy Reasons
21/09/17	08:40	228	Metallurgy Reasons
21/09/17	06:09	194	Metallurgy Reasons
21/09/17	06:05	180	Metallurgy Reasons
19/09/17	22:19	228	Metallurgy Reasons
19/09/17	21:22	228	Metallurgy Reasons
26/09/17	19:26	184	Metallurgy Reasons
26/09/17	18:52	190	Metallurgy Reasons
26/09/17	16:31	297	Metallurgy Reasons
26/09/17	15:06	278	Metallurgy Reasons
26/09/17	10:49	256	Metallurgy Reasons
26/09/17	10:24	228	Metallurgy Reasons
26/09/17	03:08	184	Metallurgy Reasons
23/09/17	09:29	190	Metallurgy Reasons
23/09/17	08:10	278	Metallurgy Reasons
00/01/00	00:00	218	Metallurgy Reasons
Total		3614	

Signed on behalf of the Operator

Dated 29/09/17

Johnny

Form I&S Operational 1

RELEASES INTO AIR

Operational Summary for the month Sep-2017

Operator: Tata Steel UK Ltd

Permit: BL7108 / RP3730BV

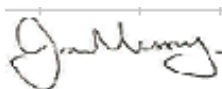
Location: Port Talbot Works

Release Point: A1

Day	% max throughput	% data capture	% EP availability	% UJT availability	Sinter Blend			Daily average	Particulate Matter (mg/m3)							
					Mean sulphur % w/w	Mean chloride % w/w	Mean reverts % w/w		4 hour rolling average				Hourly average			
									Maximum	Mean	Minimum	Standard deviation	Maximum	Mean	Minimum	Standard deviation
01-Sep-17	41	100%	100%	83%	0.036	0.004	7.40%	37	80	33	0	29	109	37	0	37
02-Sep-17	82	100%	100%	100%	0.036	0.004	7.40%	53	72	52	44	9	129	53	41	18
03-Sep-17	84	100%	100%	100%	0.036	0.004	7.40%	54	89	55	45	14	167	54	40	25
04-Sep-17	87	100%	100%	62%	0.035	0.006	8.16%	70	103	70	40	21	138	70	38	27
05-Sep-17	87	100%	100%	63%	0.035	0.006	8.16%	69	115	66	41	25	213	69	36	35
06-Sep-17	57	100%	100%	99%	0.035	0.006	8.16%	52	99	55	0	24	170	52	0	49
07-Sep-17	83	100%	100%	100%	0.035	0.006	8.16%	19	60	21	0	21	72	19	0	25
08-Sep-17	82	100%	100%	100%	0.035	0.006	8.16%	54	134	45	0	41	211	54	0	54
09-Sep-17	85	100%	100%	100%	0.038	0.021	6.59%	66	143	71	57	20	89	66	55	9
10-Sep-17	56	100%	100%	100%	0.038	0.021	6.59%	47	70	46	16	17	76	47	0	24
11-Sep-17	75	100%	100%	100%	0.038	0.021	6.59%	76	105	76	61	12	145	76	55	20
12-Sep-17	78	100%	100%	100%	0.038	0.021	6.59%	69	93	69	54	11	120	69	43	15
13-Sep-17	68	100%	100%	76%	0.038	0.021	6.59%	59	83	60	41	13	90	59	0	18
14-Sep-17	85	100%	100%	78%	0.044	0.016	8.15%	69	91	66	45	14	112	69	45	18
15-Sep-17	75	100%	100%	22%	0.044	0.016	8.15%	75	102	75	47	18	196	75	7	45
16-Sep-17	72	100%	100%	81%	0.044	0.016	8.15%	61	99	63	48	13	156	61	35	24
17-Sep-17	55	100%	100%	35%	0.044	0.016	8.15%	37	70	38	0	16	78	37	0	23
18-Sep-17	82	100%	100%	40%	0.044	0.016	8.15%	44	69	42	30	12	81	44	28	15
19-Sep-17	61	100%	100%	100%	0.044	0.022	7.72%	44	73	46	0	22	120	44	0	31
20-Sep-17	69	100%	100%	100%	0.044	0.022	7.72%	44	64	44	4	15	91	44	0	24
21-Sep-17	74	100%	100%	100%	0.044	0.022	7.72%	52	85	53	23	15	121	52	0	23
22-Sep-17	65	100%	100%	100%	0.044	0.022	7.72%	52	82	48	10	19	120	52	0	24
23-Sep-17	56	100%	100%	100%	0.044	0.022	7.72%	45	86	49	0	31	99	45	0	34
24-Sep-17	51	100%	100%	100%	0.046	0.016	8.76%	44	86	42	0	30	156	44	0	40
25-Sep-17	52	100%	100%	100%	0.046	0.016	8.76%	43	81	45	0	22	113	43	0	34
26-Sep-17	55	100%	100%	99%	0.046	0.016	8.76%	36	62	34	0	17	86	36	0	25
27-Sep-17	80	100%	100%	100%	0.046	0.016	8.76%	62	103	61	44	19	162	62	33	25
28-Sep-17	81	100%	100%	100%	0.046	0.016	8.76%	65	82	65	52	10	91	65	44	14
29-Sep-17	64	100%	100%	100%	0.046	0.016	8.76%	74	142	74	1	32	161	74	0	48
30-Sep-17	83	100%	100%	100%	0.046	0.03	8.31%	59	75	58	50	7	85	59	48	10
Month ave	71	100%	100%	88%	0.04	0.02	0.1	54	-	54	-	-	-	54	-	-
Month max.	87	-	-	-	0.05	0.03	0.1	76	143	-	-	-	213	-	-	-
Limit	-	-	-	-	0.06	-	-	40	-	-	-	-	-	-	-	-

* No data available.

Signed on behalf of the Operator



Dated 19/10/2017

Form Sinter CEMS

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				Reason
Date	Time	Duration (mins)	Planned/Unplanned	
02-Jul-17	08:35	2m	unplanned	Loss of raw mix due to mixer failing to come in.
03-Jul-17	09:10	3h 30m	unplanned	Delay to replace bolts on North exciter
03-Jul-17	12:52	13m	unplanned	loss of fines control, stopped system checked and started up ok.
03-Jul-17	13:20	9m	unplanned	delay due to hard sinter on start up.
03-Jul-17	15:30	59m	unplanned	1021 tracked over and required digging off and tension.
04-Jul-17	03:34	12m	unplanned	Change tracking roller as belt running into structure
04-Jul-17	04:15	11m	unplanned	Hood tripped, no reason why
04-Jul-17	15:52	40m	unplanned	hood water tank hit low level
06-Jul-17	01:51	1h 21m	unplanned	Delay taken to prevent breaching 4h waste gas pcme average
06-Jul-17	10:08	46m	unplanned	950 ddv blockage, stop taken to clear out ddv.
06-Jul-17	11:05	16m	unplanned	Hood tripped/slamshut valve activated
06-Jul-17	11:22	26m	unplanned	Hood tripped/slamshut valve activated
07-Jul-17	12:51	1h 4m	unplanned	Patch repair clipped to 1065 conveyor
07-Jul-17	17:37	1h 26m	unplanned	SWGF tripped on Motor NDE Horizontal, North fan then tripped on anti windmill, when lighting hood slam sht activated 6 times so switched lines and hood lit
09-Jul-17	10:02	58m	unplanned	Excess vibration in horizontal plane on SWGF motor bearings along with axial. Vibration in excess of trip limits on the South. Then the NWGF system tripped on windmill protection.
09-Jul-17	11:14	21m	unplanned	Excess vibration in axial plane on SWGF motor DE bearing, NWGF brought to idle to stop windmill protection from activating.
05-Jul-17	03:45	21h 15m	Planned Maintenance	18 hour PM
10-Jul-17	12:09	15m	unplanned	Damaged r-rollers seen marking the belt. Plant stopped to change 3 r-rollers.
10-Jul-17	12:50	22m	unplanned	Stop to change a holed pallet, 42 taken out, 58 put on.
10-Jul-17	13:12	29m	unplanned	Replacing broken straps on 1020 feeder
10-Jul-17	19:50	4m	unplanned	Bobcat utilised to remove build-up activated trip cable
10-Jul-17	20:38	12m	unplanned	SWGF trip on NDE horizontal.
11-Jul-17	09:16	18m	unplanned	Stop to qap cooler trays prior to performing repair work on the cooler rails.
11-Jul-17	10:01	2h 20m	unplanned	Repairs to cooler rails.
11-Jul-17	16:02	14m	unplanned	SWGF fan tripped for Motor nde horizontal vibration (no unforeseen circumstances evident on strand).North fan speed reduced to prevent windmill.
12-Jul-17	11:13	13m	unplanned	Both WG fans tripped due to only one water cooling fan running. No 3 fan gearbox noisy and hot.
12-Jul-17	12:42	19m	unplanned	Both WG fans tripped due to only one water cooling fan running. No 3 fan gearbox noisy and hot.
12-Jul-17	13:41	2h 18m	unplanned	1027 h/e snub drum changed
12-Jul-17	22:18	6h 42m	unplanned	South leg of 1008 feeder fracture. Plant stop to perform weld repair to this.
13-Jul-17	22:30	19m	unplanned	Pallet change (hole north of centre) 76 off 10 on.
14-Jul-17	09:01	8m	unplanned	Small stop to burn through
14-Jul-17	10:28	47m	unplanned	Plaaset chnage 65 off 73 on Grate bars front row middle.Delay extended due to having to shuffle pallets around on side of strand.
15-Jul-17	06:09	5m	unplanned	Loss of temps along strand.
16-Jul-17	11:02	3m	unplanned	1004 conveyor dropped out but restarted with voltage. Conveyor checked with no issue.
16-Jul-17	12:06	1h 37m	unplanned	Re-secure 4x straps on 1020 feeder
17-Jul-17	12:00	41m	unplanned	8x failed rollers. Stop to replace
18-Jul-17	20:32	8m	unplanned	Mixer failed to start when raw-mix group started.
19-Jul-17	14:41	6m	unplanned	Raw mix material sticking, loss of strand temps after cleaning. Stop to Sinter through.
19-Jul-17	22:04	10m	unplanned	Stop to check 1026 North weigher zero.
20-Jul-17	01:29	7m	unplanned	Delay incurred to remove ceramic lining from No5 Weigh-feeder

Signed on behalf of the Operator

Dated

05/10/17

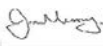
Form Sinter Operational

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					Reason
Date	Time	Duration (mins)	Planned/Unplanned		
20-Jul-17	09:12	4m	unplanned		Removing debris from Strand.
20-Jul-17	09:52	10m	unplanned		Stopped to sinter through due to loss of temps as compaction on strand from removing mesh from rollfeeder.
20-Jul-17	11:06	23m	unplanned		Trip activated in error by bobcat on 1022 conv
21-Jul-17	00:16	1h 8m	unplanned		North drive belts parted causing damage to the north underspeed and supporting bracket. New underspeed fitted and bracket repaired and refitted.
21-Jul-17	12:04	31m	unplanned		Stop taken to patch large hole in area on the south side of the discharge area. Hole getting visibly bigger over past 24 hours.
21-Jul-17	22:00	7h 0m	unplanned		1008 Feeder fracture repair failed. Stop taken to perform in-situ repairs as spare feeder not available.
22-Jul-17	16:41	7m	unplanned		Loss of temps along strand
23-Jul-17	00:51	4m	unplanned		Loss of raw mix in hopper due to removal of several mixer lumps from rollfeeder.
23-Jul-17	13:34	57m	unplanned		Pallet change required No43 Holed leading row mid / south on pallet slam shut activated x 4 before able to lift hood
23-Jul-17	15:12	4m	unplanned		Loss of temps along strand
24-Jul-17	01:51	4m	unplanned		South bent beam activated.
24-Jul-17	07:56	7m	unplanned		Emergency stop button activated in error on 1066 pan conveyor.
24-Jul-17	08:44	8m	unplanned		Stop to sinter through on the Strand after temperature dropped due to roll feeder cleaning (Backplate scraper ineffective)
25-Jul-17	12:40	4h 26m	unplanned		Stop to perform repair to 1008-feeder, also emergency screen change to 1023 screen.
25-Jul-17	23:21	3m	unplanned		Small stop to check intermediate shaft
26-Jul-17	00:03	5m	unplanned		Loss of temps along strand.
27-Jul-17	19:06	6m	unplanned		1020 bin hi-hi.
27-Jul-17	19:24	3m	unplanned		Loss of raw mix. Mixer failed to start.
27-Jul-17	19:43	9m	unplanned		HSB stalled on hard sintered material.
27-Jul-17	19:54	1h 37m	unplanned		1066-pan conveyor stopped.
27-Jul-17	05:52	13h 6m	Planned Maintenance		8 hour PM period extended due to 1008 feeder change requirement. 1008 feeder change completed 17:00. Delays in reinstating fans, 1009 shaft detector meant restart delayed.
29-Jul-17	14:44	9m	unplanned		Hood tripped 'Quick Action Valve SOV 27-205' activated. Gas pressure increased to 102mb (normally 80mb) activating the valve
29-Jul-17	14:55	3m	unplanned		trip activated while cleaning tail end
29-Jul-17	20:45	20m	unplanned		Pallet change for hole, bars missing on front row middle, 134 off 51 on
30-Jul-17	20:38	14m	unplanned		changing 2 return rollers
31-Jul-17	11:03	3m	unplanned		Tip activated while cleaners working in area
01-Aug-17	10:15	1h 55m	unplanned		Stop to repair rails and tension 1066 pan conveyor.
01-Aug-17	12:23	2m	unplanned		1020 hopper hi hi level a.arm after plant restart.
01-Aug-17	12:36	3h 10m	unplanned		Plant stop forcooler alarm. Check shows wheel off the rail.
01-Aug-17	16:12	9m	unplanned		Stop to gap the cooler trays
01-Aug-17	16:25	2m	unplanned		Trip activated on 1021-con. Trip reset before operator could attend site.
01-Aug-17	16:50	1h 2m	unplanned		Stop to complete repairs to cooler tray wheel.
02-Aug-17	08:30	3m	unplanned		Trip activated on 1021-con. Scaffolders working in the area at the time.
04-Aug-17	08:04	20m	unplanned		Pallet change for wheel off on North side, 63c off, and 135 on.
04-Aug-17	21:00	11h 48m	Electrical		Stop to clear obstruction in the r-fines chute. On restart, unable to get fines feeder to run, also mixer water issues. Fault traced to 1003 east weigher controlling return fines?.
07-Aug-17	10:26	4m	unplanned		Trip activated east side of conveyor Dbi in area at time
07-Aug-17	23:30	4m	unplanned		trip activated by bobcat
08-Aug-17	05:41	3h 15m	unplanned		Cooler stopped found wheel off tray No44 (outer) wheel wedged at bottom of dip rail. Tray 45 looks to have come off in dip rail.

Signed on behalf of the Operator

Dated05/10/17

Form Sinter Operational

RELEASES INTO AIR

Form Sinter Operational Cont.

Operational summary for quarter ending 00-Jan-00

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/Unplanned	
08-Aug-17	09:44	2h 3m	unplanned	Fitting new wheel to tray No44 (outer)
10-Aug-17	14:05	25m	unplanned	Pallet change 42 on 33 off
11-Aug-17	15:28	24m	unplanned	Loss of water flow to North fan resulting in delay. Flow meters found to be clogged.
11-Aug-17	19:33	39m	unplanned	Troughing roller jammed between belt and tail drum causing damage to underspeed
12-Aug-17	02:35	25m	unplanned	Pallet change 33 on 55 off
13-Aug-17	01:11	4m	unplanned	On inspections found a shovel lodged in a return roller
13-Aug-17	09:04	2m	unplanned	trip activated by cleaners
13-Aug-17	09:14	3h 3m	unplanned	issues with incoming gas supply. This due to COG isolation meaning Natural Gas being used in area that normally use COG causing low incoming gas supply to plant tripping hood.
13-Aug-17	13:54	1h 1m	unplanned	issues with incoming gas supply. This due to COG isolation meaning Natural Gas being used in area that normally use COG causing low incoming gas supply to plant tripping hood.
13-Aug-17	15:00	1h 14m	unplanned	gas flow to low coming in to the plant. pressure switches needed bleeding, bloom panel issues also, changing to stream B.
14-Aug-17	11:43	9m	unplanned	needed to adjust 1001 baffle to track 1002 conveyor
15-Aug-17	01:04	50m	Electrical	Delay to replace damaged UI/Speed on 1002
15-Aug-17	01:59	30m	unplanned	delay to replace pallet, grate bars missing in front row centre, 43 on no number on pallet removed
15-Aug-17	11:15	22m	unplanned	Pallet failed on grate bars and insulation pieces middle tailing row middle. Pallet 62 off / 46 on
15-Aug-17	19:05	6m	unplanned	stopped to remove mixer mesh from 1004
16-Aug-17	13:51	6m	unplanned	Mixer dropped out a couple of times in quick succession, loss of raw mix, mixer required floating.
17-Aug-17	21:04	39m	unplanned	low cooling water flow, flow meters checked and all clean, slam shut activated when lighting the hood.
17-Aug-17	10:31	9m	unplanned	Blockage on 1014 chute
18-Aug-17	23:02	30m	unplanned	Both north and south fans stopped slam cooling water low flow, slam shut activated
18-Aug-17	09:55	3h 20m	unplanned	Patching 1021 conveyor
19-Aug-17	05:00	6h 45m	unplanned	Plant stopped to allow precip to be permitted and opened up ready for Kings to inspect / repair No2 field.
19-Aug-17	11:52	4m	unplanned	Delay when 1020 out on hihi
19-Aug-17	12:11	4m	unplanned	Delay to sinter through due to loss of temps
19-Aug-17	18:51	17m	unplanned	Underspeed needed adjusting
19-Aug-17	22:11	1h 47m	unplanned	Repairing 2 holes on 1021
20-Aug-17	03:02	2m	unplanned	Checking repairs on 1021
20-Aug-17	07:19	4h 49m	unplanned	Delay to replace 1021 belt due to damage.
20-Aug-17	23:17	1h 25m	unplanned	T/E buried due to issues with 1021 conveyor clip joint and material on return
21-Aug-17	02:30	5m	unplanned	Tracking issues
22-Aug-17	19:22	36m	unplanned	pallet change for hole, 134 on 120 off
22-Aug-17	13:35	55m	unplanned	Stopped to carry out rail repairs to south rail on lifting wheel strand level.
22-Aug-17	18:47	17m	unplanned	Delay to inspect strand due to main breaker tripping out
23-Aug-17	14:30	52m	unplanned	Wheel off conveyor
24-Aug-17	03:48	17h 45m	Planned Maintenance	Planned maintenance
24-Aug-17	22:42	1h 36m	Environmental	stopped to avoid 4 hourly WG breach
25-Aug-17	00:48	1h 0m	unplanned	Hearth layer bin run empty at 39.7% and cooler was not full.
25-Aug-17	03:12	24m	unplanned	Hearth layer bin run empty again and cooler was not full.
26-Aug-17	18:33	2m	unplanned	Lump detector activated (mixer lump)

Signed on behalf of the operator
Dated: 05-Oct-17

RELEASES INTO AIR

Form Sinter Operational Cont.

Iron Ore Sintering - Record of strand stoppages > 00-Jan-00

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
27-Aug-17	08:28	9m	unplanned	Delay to remove several scaffolding poles in chute, and inspect 1065 joint
27-Aug-17	11:21	1h 31m	unplanned	Delay to replace damaged patch on 1065 conveyor joint
27-Aug-17	16:48	4m	unplanned	delay to remove flap on 1065
27-Aug-17	18:09	40m	unplanned	NDE horizontal trip
27-Aug-17	20:00	30m	unplanned	1002 stopping
27-Aug-17	21:35	11m	unplanned	1002 stopping
27-Aug-17	21:48	8m	unplanned	1002 stopping
27-Aug-17	22:08	5m	unplanned	1002 stopping
27-Aug-17	22:15	1h 16m	unplanned	1002 stopping
27-Aug-17	23:36	5m	unplanned	1002 stopping
28-Aug-17	00:57	30m	unplanned	1002 stopping
29-Aug-17	07:47	47m	unplanned	switching water cooling pumps over from North to south pump due to leak and both pumps tripped tripping the WG Fans
29-Aug-17	08:46	3m	unplanned	when permitting North cooling water pump both pumps tripped again.
29-Aug-17	15:56	12m	unplanned	trip activated by falling material from No4 weigh feeder
29-Aug-17	17:36	52m	unplanned	1022 dropped out, checks carried out possibel belt slipping?
31-Aug-17	14:50	13m	unplanned	Sinter Temps / Strand conditions
31-Aug-17	16:54	17m	unplanned	Sinter Temps / Strand Conditions
31-Aug-17	17:14	11m	unplanned	Screen dropped out.
31-Aug-17	17:21	1h 35m	unplanned	Issue with 1065 con found strinor wrapped around dwt drum and along length of belt north side approx 2" wide
31-Aug-17	20:57	11m	unplanned	Stopped to sinter through - issues with return fines chute blocked.
31-Aug-17	23:26	2m	unplanned	strand stopped, 1009 e stop??? plant came in on voltage
31-Aug-17	23:31	33m	unplanned	A. 1065 dropped out found dead weight built up with material and bottoming out close to ground floor level, material removed and dead weight dropped slightly.
01-Sep-17	03:18	24m	unplanned	A. Another 2" strinor found on 1065 dead weight, same removed. Was around 30m long
01-Sep-17	04:49	11h 2m	unplanned	Conveyor has failed, crash spare being fitted.
01-Sep-17	16:53	6m	unplanned	1020 Bin Hi-Hi
01-Sep-17	17:21	9m	unplanned	Loss of sinter temps along strand.
02-Sep-17	23:01	3m	unplanned	1020 Hi-hi
02-Sep-17	23:55	6m	unplanned	1020 Hi-hi
03-Sep-17	09:26	49m	unplanned	U/Speed fault. Same changed
03-Sep-17	14:27	7m	unplanned	Trip activated, no persons in area. Possible falling sinter
04-Sep-17	02:52	5m	unplanned	Lumps at roll feeder / mixer failed to come in on restart
05-Sep-17	14:40	1m	unplanned	cooler dropped out with no alarm
06-Sep-17	07:00	8h 8m	Planned Maintenance	planned maintenance
06-Sep-17	15:52	3m	unplanned	1020 bin empty on start up so in manual few issues after plant started and 1020 went out on hihi
06-Sep-17	15:15	4m	unplanned	1020 feeder HIHI
06-Sep-17	15:30	2m	unplanned	1020 Hi Hi
07-Sep-17	15:47	35m	unplanned	A- Material built up on tail end causing belt to track south. Stopped to removed build up and belt then tracked over.
10-Sep-17	04:50	2h 10m	unplanned	1028 conv stopped empty causing the product bin to take us out on hihi.

Signed on behalf of the operator
Dated: 05-Oct-17



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Date	Time	Duration (mins)	Planned/	Reason
	Start		Unplanned	
10-Sep-17	07:00	25m	unplanned	Fault finding 1028 showing running when its not
10-Sep-17	08:02	2h 2m	unplanned	Fault finding 1028 showing running when it wasnt, Fault found to 110v Allen West
11-Sep-17	12:25	25m	unplanned	Roller changes on 1027/1028
11-Sep-17	19:38	22m	unplanned	Pallet change (131off / 6 on) Bars
11-Sep-17	18:28	22m	unplanned	pallet change (63 off / 96 on) Bars
13-Sep-17	15:44	19m	unplanned	delay to investigate possible damage to 951 chain
13-Sep-17	16:30	1h 55m	unplanned	delay to carry out repairs to 951 chain conveyor.
15-Sep-17	11:03	1h 39m	unplanned	1022 snub drum south bearing failed. Same changed.
15-Sep-17	12:49	7m	unplanned	loss of raw mix due to emptying 1001, 1002, 1003 conveyor on shutting down
15-Sep-17	13:20	6m	unplanned	Stopped to sinter through.
15-Sep-17	20:39	42m	unplanned	Delay when North fan tripped wulth E/Stop fault and unable to close vanes which tripped South fan
17-Sep-17	20:03	52m	unplanned	under speed needed replacing
17-Sep-17	14:12	8m	unplanned	Strand tripped, main circuit breaker needed reset
17-Sep-17	14:47	10m	unplanned	Loss of temps on strand, stop taken to sinter through
17-Sep-17	17:27	4h 57m	unplanned	Two cooler cars derailed on outer track in @ No1 cooling fan position..
18-Sep-17	22:31	5m	unplanned	1020 hi hi
18-Sep-17	12:14	8m	unplanned	Main DCCB tripped
18-Sep-17	13:14	4m	unplanned	Cleaning activities around cooler, activated Emergency stop.
18-Sep-17	21:27	14m	unplanned	we locked off 1001 to cut off stringer, when i locked it off 1002 stopped to, then un able to start back up, shift elec found no faults belt then started on starting volts.
18-Sep-17	23:27	9m	unplanned	when using crane on strand floor plant put down as air bourn dust was to bad to see safely when driving with load on crane
19-Sep-17	11:00	4m	unplanned	Functional testing of 1001 local isolator
19-Sep-17	12:40	6h 51m	unplanned	Outer Dip Rail entry rail section sheared and rail unsecure.
20-Sep-17	09:27	3m	unplanned	South strand bent beam limit activated. Visual check shows nothing unusual.Plant reset and plant restarted.
20-Sep-17	11:10	4h 16m	unplanned	Stop to check precip for fields three earth fault. Two defective wires removed from field three discharge side.
22-Sep-17	03:46	1h 46m	unplanned	Fuses blown after stop / start of conv's.
22-Sep-17	06:01	9m	unplanned	Sintering thro after restart due to wet raw mix
22-Sep-17	19:45	33m	unplanned	South bent beam limit activated, check shows pallet with wheel off, and the wheel wedged under the following wheel. Delay to remove offending wheel from the track.
22-Sep-17	20:44	35m	unplanned	Stop to remove pallet with wheel missing.
22-Sep-17	21:40	4m	unplanned	South bent beam limit activated. Limit switch had been replaced too close. Limit adjusted and reset plant restarted.
22-Sep-17	23:37	4m	unplanned	Mixer lumps through the rail feeder resulting in compaction on the Strand. Stop to sinter through.
23-Sep-17	10:08	7m	unplanned	Ultimate limit activated causing loss of raw mix to the hopper. Mixer floated.
23-Sep-17	15:34	15h 26m	unplanned	Two wheels off the rail in the dip rail and the rail sheared on the recently repaired section at the dip rail entry.
22-Sep-17	01:46	6m	unplanned	Stop 01:46 - 01:52 Cooler wheel detector...
22-Sep-17	01:55	4m	unplanned	Stop 01:55 - 01:59 Cooler wheel detector...
24-Sep-17	07:00	40m	unplanned	Continuation of cooler repairs / commissioning
24-Sep-17	07:52	2m	unplanned	1020 feeder hi-hi
24-Sep-17	14:08	52m	unplanned	1015 conveyor on stop checks carried out found material build tail end along with belt electrically tripped out reset no joy further checks along belt found 6" Ongoing atow
25-Sep-17	06:27	4m	unplanned	Loss of temps along strand.

Signed on behalf of the operator
Dated: 05-Oct-17

00-Jan-00

[illegible]

Johnny