

RELEASES INTO AIR

Operational Summary for the month Dec-2015

Operator: Tata Steel UK Ltd

Permit: BL7108 / RP3730BV

Location: Port Talbot Works

Release Point: A1

Day	% max throughput	% data capture	% EP availability	% UJT availability	Sinter Blend			Particulate Matter (mg/m3)								
								Daily average	4 hour rolling average				Hourly average			
					Mean sulphur % w/w	Mean chloride % w/w	Mean reverts % w/w		Maximum	Mean	Minimum	Standard deviation	Maximum	Mean	Minimum	Standard deviation
01-Dec-15	56	100%	100%	100%	0.033	0.017	9.92	16	26	16	8	6	39	16	4	7
02-Dec-15	56	100%	100%	100%	0.033	0.017	9.92	16	63	24	12	17	123	24	11	26
03-Dec-15	51	100%	100%	100%	0.033	0.017	9.92	16	27	17	8	5	35	18	3	8
04-Dec-15	50	100%	100%	100%	0.033	0.017	9.92	16	23	11	7	4	23	10	4	4
05-Dec-15	61	100%	100%	100%	0.036	0.010	10.79	16	71	30	15	17	116	30	11	24
06-Dec-15	64	100%	100%	100%	0.036	0.010	10.79	15	42	27	17	9	84	27	16	18
07-Dec-15	58	100%	100%	100%	0.036	0.010	10.79	15	36	22	11	6	76	23	0	15
08-Dec-15	56	100%	100%	100%	0.036	0.010	10.79	15	66	35	20	14	124	34	17	23
09-Dec-15	66	100%	100%	99%	0.036	0.010	10.79	14	37	26	18	5	49	26	17	8
10-Dec-15	35	100%	100%	88%	0.037	0.010	10.94	13	143	54	0	49	180	60	0	62
11-Dec-15	51	100%	100%	100%	0.037	0.010	10.94	13	140	48	8	48	169	42	5	50
12-Dec-15	59	100%	100%	100%	0.037	0.010	10.94	12	27	13	8	5	25	11	5	5
13-Dec-15	50	100%	100%	58%	0.037	0.010	10.94	12	24	12	6	4	57	12	1	10
14-Dec-15	50	100%	100%	51%	0.037	0.010	10.94	13	45	22	10	11	79	23	0	20
15-Dec-15	63	100%	100%	100%	0.037	0.010	10.94	13	16	12	10	1	20	12	5	3
16-Dec-15	64	100%	100%	100%	0.036	0.010	5.16	14	23	16	9	5	32	16	9	7
17-Dec-15	10	100%	100%	100%	0.036	0.010	5.16	15	67	15	0	23	204	21	0	49
18-Dec-15	54	100%	100%	100%	0.036	0.010	5.16	15	169	41	7	50	281	35	6	59
19-Dec-15	59	100%	100%	100%	0.036	0.010	5.16	15	12	10	8	1	16	10	8	2
20-Dec-15	56	100%	100%	100%	0.036	0.010	5.16	20	35	16	10	8	56	16	9	11
21-Dec-15	59	100%	100%	100%	0.036	0.010	5.16	23	17	13	10	2	28	13	9	4
22-Dec-15	39	100%	100%	100%	0.037	0.016	7.42	24	61	22	0	20	93	23	0	26
23-Dec-15	52	100%	100%	100%	0.037	0.016	7.42	24	31	17	12	5	34	16	10	5
24-Dec-15	57	100%	100%	100%	0.037	0.016	7.42	24	23	15	12	3	31	16	11	4
25-Dec-15	59	100%	100%	94%	0.037	0.016	7.42	24	18	14	8	3	19	14	8	3
26-Dec-15	38	100%	100%	100%	0.037	0.016	7.42	25	44	19	3	12	127	21	0	28
27-Dec-15	64	100%	100%	100%	0.041	0.020	6.40	24	38	22	15	8	62	20	12	11
28-Dec-15	61	100%	100%	100%	0.041	0.020	6.40	24	50	23	13	11	100	24	12	18
29-Dec-15	57	100%	100%	15%	0.041	0.020	6.40	25	28	20	13	4	60	19	4	10
30-Dec-15	61	100%	100%	90%	0.041	0.020	6.40	25	76	25	16	18	186	28	14	34
31-Dec-15	53	100%	100%	100%	0.041	0.020	6.40	25	77	29	16	12	77	28	10	12
Month ave	-	100%	100%	93%	0.037	0.013	8.37	18	-	22	-	-	-	22	-	-
Month max.	66	-	-	-	0.04	0.02	10.9	25	169	-	-	-	281	-	-	-
Limit	-	-	-	-	0.06	-	-	115	200	-	-	-	-	-	-	-

Signed on behalf of the Operator



Dated 22/01/2016

Form Sinter CEMS

RELEASES TO AIR

Operational summary for quarter ending 31-Dec-15

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	27224		
	Month 2	11267		
	Month 3	12807		
A13A BOS convertor 2 gas flare	Month 1	54447		
	Month 2	22534		
	Month 3	25613		
A33 Blast furnace gas flare stack no.1	Month 1	41577		
	Month 2	40584		
	Month 3	168298		
A33C Blast furnace gas flare stack no.2	Month 1	143285		
	Month 2	107312		
	Month 3	214354		
A33A Blast furnace gas main number 4 bleeder	Month 1		64	
	Month 2		123	
	Month 3		31	
A33B Blast furnace gas main number 5 bleeder	Month 1		91	
	Month 2		102	
	Month 3		424	
A59 Coke oven gas triple flare	Month 1	64260		
	Month 2	23275		
	Month 3	45081		
Blast furnaces 4 and 5	Month 1			1746308
	Month 2			1314155
	Month 3			1425457
Coke ovens	Month 1			633066
	Month 2			434029
	Month 3			463326
BOS Plant	Month 1			247969
	Month 2			170448
	Month 3			191601

Signed on behalf of the Operator

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Dated

22/01/16

Form Installation gas

WASTE PRODUCTION

Operational summary for quarter ending 31-Dec-15

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	Oct	45852	2653					
	Nov	47249	5180					
	Dec	25315	4479					
Iron and steel installation	Oct			9	267			
	Nov			1	199			
	Dec			2	162			
BF4 tapholes	Oct					41070		
	Nov					37990		
	Dec					30232		
BF5 tapholes	Oct					44873		
	Nov					39281		
	Dec					32903		
BF5	Oct							0
	Nov							0
	Dec							0
Coke ovens	Oct						171	**
	Nov						122	**
	Dec						111	**

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

** WID compliant Oil.

Signed on behalf of the Operator

Dated 22/01/16

Form Waste 1

RELEASES INTO AIR

Operational summary for quarter ending 31-Dec-15

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)	2148	1806	2045	2184	733	2094	2178
Mean load (%MCR)	61.1	62.4	54.7	95.5	90.0	65.6	89.9
Mean flue gas flow (Nm3/hr)	112067	118304	53171	226929	87745	165537	237231
Heavy Fuel Oil							
Average net CV (GJ/te)	40.9	40.9	40.9	40.9	40.9	40.9	
Max. sulphur content (g/Kg)	9.3	9.3	9.3	9.3	9.3	9.3	
Max. asphaltene content (ppm)	45	45	45	45	45	45	
Ave.%wt Sulphur	0.93	0.93	0.93	0.93	0.93	0.93	
NOx factor	0.1	0.1	0.1	0.1	0.1	0.1	
Coke Oven Gas							
Average net CV (GJ/te)	43.0	43.0	43.0	43.0	43.0	43.0	
Sulphur content (g/Nm3)	3.08	3.08	3.08	3.08	3.08	3.08	
NOx factor	0.04	0.04	0.04	0.04	0.04	0.04	
Blast Furnace Gas							
Average net CV (GJ/te)	2.63	2.63	2.63	2.63	2.63	2.63	2.63
Sulphur content (g/Nm3)	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/te)	51.5	51.5	51.5	51.5	51.5	51.5	51.5
NOx factor	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Signed on behalf of the Operator



Dated 22/01/16

Form LCPD Operating 1

RELEASES INTO AIR

Operational summary for quarter ending 31-Dec-15

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	10-Nov-15 15:47	22-Oct-15 10:49	24-Feb-15 10:00	23-Feb-15 11:05	01-Dec-15 10:15	02-Dec-15 09:41
Flowrate (Nm3/hr)	261,682	60,914	190,028	247,700	272,817	131,949
NOx measured conc. (mg/Nm3)	26	20	71	58	15	22
NOx limit (mg/NM3)	300 BFG/COG 450 HFO	300 BFG/COG 450 HFO	300 BFG/COG 450 HFO	300 BFG/COG 450 HFO	300 BFG/COG 450 HFO	200 BFG&NG -
Sampling method used	ISO 10849	ISO 10849	ISO 10849	ISO 10849	ISO 10849	ISO 10849
Analytical method used	EC*	EC*	EC*	EC*	EC*	EC*
Continuous hourly monitoring result over the period	1222		91.7	12.7		6.3
Fuel usages over the sampling period						
Natural gas (%)	48%	4%	10%	10%	7%	9%
BF gas (%)	41%	80%	70%	78%	86%	91%
Coke oven gas (%)	12%	17%	20%	12%	7%	
Heavy fuel oil (%)	0%	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

Signed on behalf of the Operator

Dated 22/01/16

Form LCPD DCM NOx

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RELEASES INTO AIR

Operational summary for quarter ending

31-Dec-15

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	Oct	0	44833	51521	3408		99763
	Nov	0	37707	45802	4049		87559
	Dec	0	31712	47482	2880		82074
A50B Service Boiler 5	Oct	0	49101	62051	0		111152
	Nov	0	31954	44432	0		76386
	Dec	0	20971	22682	0		43653
A51 Boiler A5	Oct	41	7112	75107	3600	0	85860
	Nov	41	3754	56209	2638	1006	63649
	Dec	0	4541	44971	1290	1012	51814
A52A Boiler 6	Oct	4855	65611	280054	56562	34762	441844
	Nov	182	44451	229036	54273	26248	354189
	Dec	0	42748	229282	39518	25738	337285
A52B Boiler 7	Oct	0	8453	69254	17147	6222	101076
	Nov	0	9	0	4460	13	4481
	Dec	62	44012	164449	27397	16978	252898
A53 Mitchell	Oct	167	7794	120153	9112		137226
	Nov	267	5806	117578	7002		130654
	Dec	20	8161	119966	4381		132528
A62 Boiler 3	Oct			241439	27782	0	269221
	Nov			192760	27682	3653	224095
	Dec			181651	18985	3502	204139
Total	Oct	5063	182905	899577	117612	40984	1246140
	Nov	491	123681	685817	100105	30919	941013
	Dec	82	152145	810484	94451	47230	1104391

Signed on behalf of the Operator



Dated 22/01/16

Form LCPD Fuels

RELEASES INTO AIR

Operational summary for quarter ending

31-Dec-15

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	10-Nov-15 15:47	22-Oct-15 10:49	24-Feb-15 10:00	23-Feb-15 11:05	01-Dec-15 10:15	02-Dec-15 09:41
Flowrate (Nm ³ /hr)	261682	60,914	190,028	247,700	272,817	131,949
SO ₂ measured conc. (mg/Nm ³)	95	44	129	101	19	24
SO ₂ limit (mg/NM ³)	800 BFG/COG 1700 HFO	800 BFG/COG 1700 HFO	800 BFG/COG 1700 HFO	800 BFG/COG 1700 HFO	800 BFG/COG 1700 HFO	400 BFG&NG -
Sampling method used	BS 6069	BS 6069	BS 6069	BS 6069	BS 6069	BS 6069
Analytical method used	EC*	EC*	EC*	EC*	EC*	EC*
Continuous hourly monitoring result over the period	71		0.6	0.1		0.0
Fuel usages over the sampling period						
Natural gas (%)	48%	4%	10%	10%	7%	9%
BF gas (%)	41%	80%	70%	78%	86%	91%
Coke oven gas (%)	12%	17%	20%	12%	7%	
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

Signed on behalf of the Operator

Dated 22/01/16

Form LCPD DCM SO₂

RELEASES INTO AIR

Operational summary for quarter ending

31-Dec-15

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	Oct	2.0	23.7	12/10/15 13:00	0.7	1.7	100.0%
	Nov	2.5	31.1	27/11/15 07:00	0.8	2.1	100.0%
	Dec	1.9	55.1	12/12/15 13:00	0.4	2.8	100.0%
A51 Boiler A5	Oct	0.8	90.4	28/10/15 18:00	0.4	3.3	100.0%
	Nov	0.8	31.5	25/11/15 14:00	0.4	1.2	100.0%
	Dec	1.0	10.4	11/12/15 06:00	0.0	1.2	100.0%
A52A Boiler 6	Oct	2.7	24.3	23/10/15 10:00	0.6	3.7	100%
	Nov	1.9	20.9	25/11/15 14:00	1.1	1.0	100%
	Dec	2.0	6.5	28/12/2015 12:00	1.6	0.3	100%
A52B Boiler 7	Oct	0.1	6.6	01/10/15 09:00	0.0	0.3	100%
	Nov	1.0	85.1	27/11/15 22:00	0.0	5.8	100%
	Dec	2.0	112.4	04/12/15 10:00	0.0	8.1	100%
A53 Mitchell	Oct	3.1	21.7	28/10/15 09:00	0.0	1.4	100%
	Nov	3.1	11.8	15/11/15 15:00	1.2	0.7	100%
	Dec	3.1	8.7	02/12/15 17:00	2.0	0.7	100%

Signed on behalf of the Operator

Dated 22/01/16

Form LCPD CEM Parts

RELEASES INTO AIR

Operational summary for quarter ending

31-Dec-15

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	Oct	52.9	197.0	23/10/2015 20:00	3.1	30.4	100%
	Nov	33.0	114.9	25/11/2015 14:00	4.8	14.3	77%
	Dec	46.9	135.8	16/12/2015 5:00	7.8	18.7	96%
A52B Boiler 7	Oct	15.0	127.6	05/10/2015 10:00	0.0	36.3	100%
	Nov	1.6	191.7	29/11/2015 9:00	0.0	13.6	100%
	Dec	48.8	434.2	07/12/2015 9:00	0.0	42.3	100%
A50A & A50B Service Boilers	Oct	111.8	613.9	22/10/2015 14:00	11.2	100.5	100%
	Nov	157.8	818.3	27/11/2015 19:00	10.9	120.2	100%
	Dec	321.9	902.9	17/12/2015 4:00	13.8	201.6	100%
SULPHUR DIOXIDE (mg/Nm3) - CONTINUOUS EMISSIONS MONITORING							
Release point	Month	Month mean LIMITS: BFG/COG=800	Maximum hourly mean	Date & time of maximum value	Minimum hourly mean	Standard deviation of hourly means	% data capture over month
A52A Boiler 6	Oct	89.8	432.7	23/10/2015 16:00	30.8	63.2	100%
	Nov	68.4	202.6	25/11/2015 15:00	30.7	37.3	77%
	Dec	72.0	210.5	05/12/2015 12:00	31.1	34.7	100%
A52B Boiler 7	Oct	9.1	125.6	05/10/2015 11:00	0.0	22.1	100%
	Nov	1.9	121.9	29/11/2015 7:00	0.0	9.7	100%
	Dec	93.7	535.6	07/12/2015 9:00	0.0	84.9	100%
A50A & A50B Service Boilers	Oct	272.8	1606.8	22/10/2015 14:00	25.6	220.1	100%
	Nov	226.6	1029.7	04/11/2015 21:00	0.0	176.0	100%
	Dec	255.7	765.1	31/12/2015 23:00	0.0	162.5	100%

Signed on behalf of the Operator

Dated 22/01/16

Form LCPD CEMS SO2 & NOx

RELEASES INTO AIR

Operational summary for quarter ending

31-Dec-15

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 LIMIT=30	Monthly mean	Date & time of maximum value	Minimum daily mean	Standard deviation of daily means	% data capture
A62 Boiler 3	Oct	2.0	1.3	15-Oct-15	0.8	0.3	100.00%
	Nov	2.4	1.5	21-Nov-15	1.1	0.3	100.00%
	Dec	3.2	1.9	16-Dec-15	1.4	0.5	100.00%
SULPHUR DIOXIDE (mg/Nm3) - CONTINUOUS EMISSIONS MONITORING							
Release point	Month	Maximum daily mean LIMIT=400	Monthly mean	Date & time of maximum value	Minimum daily mean	Standard deviation of daily means	% data capture
A62 Boiler 3	Oct	85.4	23.6	07-Oct-15	5.6	17.0	100.00%
	Nov	48.7	18.6	17-Nov-15	2.4	12.6	100.00%
	Dec	64.3	23.2	23-Dec-15	6.3	17.2	100.00%
OXIDES OF NITROGEN (mg/Nm3) - CONTINUOUS EMISSIONS MONITORING							
Release point	Month	Maximum daily mean LIMIT=200	Monthly mean	Date & time of maximum value	Minimum daily mean	Standard deviation of daily means	% data capture
A62 Boiler 3	Oct	65.9	40.0	04-Oct-15	18.9	15.0	100.00%
	Nov	56.8	36.6	25-Nov-15	12.7	13.6	100.00%
	Dec	80.8	39.0	16-Dec-15	12.4	17.4	100.00%

Signed on behalf of the Operator



Dated 22/01/16

Form LCPD CEM A62

Operational summary for quarter ending 31-Dec-15

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

* Exceeds 10 day invalidation target. Notification issued.

Form LCPD CEMS LOG

RELEASES INTO AIR

Operational summary for quarter ending

31-Dec-15

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)	115	500	275	
Measured conc. according to condition 10.1.3b	65	291	246	6250
Measured oxygen content (%)	17.2	16.7	16.7	16.7
Measured conc. according to condition 10.1.3a (17%O ₂)	69	270	228	5804
Sampling method used	BS EN 13284	BS 6069	ISO 10849	BS ISO 12039
Analytical method used	Gravimetric	*EC	*EC	*EC
Date of sampling	02-Nov-15	02-Nov-15	02-Nov-15	02-Nov-15
Sample start time	10:54	14:00	14:00	14:00
Sample end time	14:53	14:59	14:59	14:59
Sample duration (mins)	239	59	59	59
Limit of detection	0.96	1.6	1.4	0.0
Continuous monitor result over the sampling period	53.0			
Process status at the time of sampling				
Mean sulphur content of sinter blend in use (%)	0.038	0.038	0.038	0.038
Reverts content of sinter blend in use (%)	11.6	11.6	11.6	11.6
Mean chloride content of sinter blend in use (%)	0.01	0.01	0.01	0.01
Throughput during sampling period (% of maximum)	52.0	52.0	52.0	52.0

* EC - electrochemical cell

Signed on behalf of the Operator



Dated 22/01/16

Form Sinter DCM 1

RELEASES INTO AIR

Operational summary for quarter ending

31-Dec-15

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	6.8	6.8	3.9	19.5	13.8	4.8	0.9	6.1	6.1	2.4	12.2	11.6	4.3	1.4	0.1	0.1	0.0	0.3	0.3	0.2	0.3
February	8.8	8.8	2.8	19.9	13.1	2.7	0.8	5.4	5.4	1.8	10.3	9.2	3.1	1.3	0.1	0.1	0.0	0.3	0.2	0.1	0.3
March	9.9	9.9	3.0	28.6	22.5	3.7	0.5	4.7	4.7	1.8	10.1	9.3	2.8	0.8	0.1	0.1	0.1	0.3	0.2	0.2	0.2
April	7.6	7.6	0.5	3.4	2.8	0.8	0.5	3.4	3.4	0.5	2.4	2.2	0.8	0.8	0.1	0.1	0.1	0.5	0.2	0.2	0.1
May	8.2	8.2	3.1	20.3	18.5	4.0	0.5	4.2	4.2	1.8	9.6	9.6	3.4	1.4	0.1	0.1	0.0	0.3	0.2	0.2	0.2
June	8.4	8.4	2.3	23.9	16.6	4.0	0.7	4.7	4.7	1.8	10.0	8.9	3.4	1.6	0.1	0.1	0.0	0.3	0.1	0.2	0.2
July	9.2	9.2	3.0	22.1	17.4	1.5	0.6	5.7	5.7	2.3	12.7	11.8	1.5	1.6	0.1	0.1	0.0	0.4	0.3	0.0	0.2
August	16.7	16.7	2.1	19.2	16.3	0.0	0.8	8.4	8.4	1.8	9.4	9.1	0.0	1.6	0.3	0.3	0.0	0.2	0.1	0.0	0.1
September	11.7	11.7	1.7	8.6	14.6	1.4	0.8	5.8	5.8	1.7	8.3	10.1	1.4	1.7	0.1	0.1	0.1	0.2	0.3	0.1	0.1
October	12.2	12.2	2.9	21.1	2.9	3.6	0.8	5.1	5.1	2.3	13.2	2.9	3.7	2.1	0.1	0.1	0.0	0.3	0.0	0.2	0.1
November	9.3	9.3	1.8	16.3	0.0	3.2	0.8	6.6	6.6	1.7	10.3	0.2	3.5	1.9	0.1	0.1	0.0	0.2	0.0	0.2	0.2
December	8.4	8.4	2.6	21.3	17.5	5.0	0.8	10.7	10.7	1.4	9.7	7.4	3.5	1.8	0.1	0.1	0.0	0.2	0.2	0.2	0.2
Totals	117	117	30	224	156	35	8	71	71	21	118	92	31	18	1.2	1.2	0.5	3.6	2.0	1.6	2.2
	687							423							12						
	Service	A5	Margam C	Mit	3			Service	A5	Mgm C	Mit	3			Service	A5	Mgm C	Mit	3		
Boiler Plant Totals	234	30	380	35	8			142	21	211	31	18			2	0	6	2	2		
NERP Annual Limit (T)	686	251	2219	575				252	96	929	212				20	4	56	10			

Signed on behalf of the Operator

Dated 22/01/16

Form LCPD Monthly 1

RELEASES INTO AIR

Operational summary for quarter ending 31-Dec-15

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	A31 ***	A32 ***	A34A	A34B	A39 #
Time and date of sampling	23-Nov-15 10:41	09-Nov-15 14:06	-	-	14-Dec-15 09:34	07-Dec-15 11:20	10-Dec-15 10:33
Flowrate (Nm3/hr)	294754	135909	-	-	167801	105489	-
NOx measured conc.(mg/Nm3) **	40	20	-	-	549	617	51
Oxygen content (%)			-	-			
NOx limits (mg/Nm3)	145	145	475	475	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 (%)	0%	0%	-	-	44%	38%	100%
BF gas (%)	63%	100%					0%
Coke oven gas (%)	10%	0%			56%	62%	
BOS Gas (%)	28%						

* EC - electrochemical cell

** A30, A31 & A32 corrected to 10.1.3b

A39 has a 6 monthly monitoring requirement - flowrate and gas usage unavailable due to new stack, flow will be taken with parts.

*** A31/32 are non operational

Signed on behalf of the Operator



Dated 26/01/16

Form I&S DCM NOx

RELEASES INTO AIR

Operational summary for quarter ending

31-Dec-15

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / NP3938GZ

Release Points: A6, A7, A34A & A34B

SULPHUR DIOXIDE - SO2 (DISCONTINUOUS MONITORING)					
Release Point	A6	A7	A34A	A34B	A39 #
Time and date of sampling	23-Nov-15 10:41	09-Nov-15 14:06	14-Dec-15 09:34	07-Dec-15 11:20	10-Dec-15 10:33
Flowrate (Nm3/hr)	294754	135909	167801	105489	-
SO2 measured conc.(mg/Nm3)	32	3	445	694	0
SO2 limits (mg/Nm3)	370	370	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 (%)	0%	0.0%	44%	38%	
BF gas (%)	63%	100.0%			
Coke oven gas (%)	10%	0.0%	56%	62%	
BOS Gas (%)	28%				

* EC - electrochemical cell

A39 has a 6 monthly monitoring requirement - flowrate and gas usage unavailable due to new stack, flow will be taken with parts.

Signed on behalf of the Operator



Dated 26/01/16

Form I&S DCM SO2

RELEASES INTO AIR

Operational summary for quarter ending

31-Dec-15

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 #	A39 #	A46 (annual)	A24	
Parameter	Chloride (as HCl)	Carbon monoxide			Particulates	Oxides of nitrogen	Sulphur dioxide	Oxides of nitrogen
Time and date of sampling		23-Nov-15 10:41	09-Nov-15 14:06	10-Dec-15 10:33	25-Jan-16 11:30			
Flowrate (Nm3/hr)		294754	135909	-	30,321			
Measured conc.(mg/Nm3)		6250	6250	49	53			
Emission limits (mg/Nm3)								
Sampling method used	Isokinetic	BS ISO 12039	BS ISO 12039	BS ISO 12039	BS EN 13284			
Analytical method used		EC *	EC *	EC *	Gravimetric			
Emission limits (kg/quarter)								
Releases (kg/qtr)								
Fuel usages over the sampling period								
Natural gas (%)		0%	0%					
BF gas (%)		63%	100%					
Coke oven gas (%)		10%	0%					
Heavy fuel oil (%)		28%						

* EC - electrochemical cell

A24 not operational

A46 and A21/22 - no longer permit requirement.

A39 has a 6 monthly monitoring requirement - flowrate and gas usage unavailable due to new stack, flow will be taken with pair
A39 particulates sampled late due to permit alterations and time constraints - see email sent 25/01/2016. Subject Incomplete Data

Signed on behalf of the Operator

Dated 27/01/16

Form I&S DCM Misc

RELEASES INTO AIR

Operational summary for quarter ending

31-Dec-15

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

Release Points: A4A, A5A, & iron plating

[illegible]

Liquid Iron Plating Operations (Iron Plating Pit)			
Date	Time	Tonnes	Reason
27/12/15	11:50	161	Metallurgy Reasons
11/12/15	05:19	209	Metallurgy Reasons
11/12/15	03:31	283	Metallurgy Reasons
09/12/15	19:38	30	Metallurgy Reasons
08/12/15	10:23	184	Metallurgy Reasons
08/12/15	09:36	218	Metallurgy Reasons
24/11/15	00:17	190	Metallurgy Reasons
23/11/15	23:27	228	Metallurgy Reasons
22/11/15	21:18	324	Metallurgy Reasons
22/11/15	19:13	203	Metallurgy Reasons
22/11/15	17:41	248	Metallurgy Reasons
22/11/15	15:33	285	Metallurgy Reasons
17/11/15	20:21	228	Metallurgy Reasons
13/11/15	15:58	250	Metallurgy Reasons
13/11/15	15:15	174	Metallurgy Reasons
Total		3215	

Signed on behalf of the Operator _____

Dated 22/01/16

Form I&S Operational 1

Operational summary for quarter ending 31-Dec-15

Release Points: Iron plating continued

Form I&S Operational 1

RELEASES INTO AIR

Operational summary for quarter ending 31-Dec-15

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	Oct	15	3.4	2.9	0.1	3.5	2.8	0.2	3.1	100%	100%
	Nov		3.3	2.7	0.1	3.4	2.6	0.2	2.9	100%	100%
	Dec		2.7	2.6	0.0	3.2	2.5	0.1	2.7	100%	100%
A8B	Oct	15	8.1	3.4	0.9	12.8	1.9	1.5	6.9	100%	100%
	Nov		6.5	1.7	1.7	14.9	1.5	2.0	3.1	100%	100%
	Dec		2.3	1.7	0.2	5.8	1.6	0.3	2.0	100%	100%
A9	Oct	25	2.3	1.2	0.3	3.1	0.0	0.5	1.8	100%	100%
	Nov		2.2	0.3	0.4	3.4	0.0	0.5	1.6	100%	100%
	Dec		1.8	1.6	0.1	3.9	0.0	0.6	1.8	100%	100%
A2	Oct	50	43.1	0.0	16.4	123.1	0.0	19.3	17.0	100%	100%
	Nov		31.3	9.4	5.9	42.3	0.0	9.2	23.9	100%	100%
	Dec		35.1	29.3	1.8	76.0	0.0	9.9	31.4	100%	100%
A10	Oct	50	6.8	2.8	0.9	8.8	3.6	1.3	3.8	100%	100%
	Nov		4.8	3.0	0.4	7.8	3.8	1.0	3.6	100%	100%
	Dec		8.4	3.6	1.2	13.9	5.0	2.3	5.6	100%	100%
A14	Oct	50	24.8	10.5	3.8	33.5	14.0	5.4	16.0	100%	100%
	Nov		16.6	3.6	4.1	26.3	5.3	5.9	7.2	100%	100%
	Dec		13.9	2.3	2.9	27.3	3.6	6.3	5.5	100%	100%
A15	Oct	50	0.4	0.2	0.1	0.8	0.2	0.1	0.2	100%	100%
	Nov		0.7	0.2	0.1	1.3	0.3	0.3	0.4	100%	100%
	Dec		2.5	0.3	0.5	23.0	0.4	5.5	0.6	100%	100%
A16	Oct	50	10.3	4.3	1.5	16.8	5.8	3.8	6.0	100%	100%
	Nov		9.1	2.7	1.3	20.7	3.9	3.9	4.3	100%	100%
	Dec		11.5	2.4	2.0	16.4	3.8	3.0	4.9	100%	100%

Signed on behalf of the Operator

Dated 27/01/16

Form I&S CEMS Parts 1 & 2

RELEASES INTO AIR

Operational summary for quarter ending 31-Dec-15

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

Iron Ore Sintering - Record of strand stoppages > 30 minutes				
Date	Time		Planned/	Reason
	Start	Duration (mins)	Unplanned	
01-Oct-15	09:00	7h 27m	Unplanned	No 5 BF off. Requirement Stop taken to carry out several claning tasks
01-Oct-15	19:19	29m	Unplanned	North fan tripped (high temp drive end bearing) also relighting hood.
01-Oct-15	20:06	24m	Unplanned	Stop 20:06 - 20:30 Started up on south fan, fan tripped (vibration). on 65mbr.
02-Oct-15	23:33	1h 15m	Unplanned	conveyor stopped and unable to restart. see email to RL and GB.
05-Oct-15	07:00	12h 0m	Planned	14 Day maintenance stop ongoing.
06-Oct-15	07:00	12h 0m	Planned	Planned maintenance period.
07-Oct-15	19:00	12h 0m	Planned	Plant on stop planned maintenance period.
08-Oct-15	19:00	12h 0m	Planned	plant on stop Planned maintenance period.
04-Oct-15	23:58	151h 2m	Planned	PM stop 23.58 for 15 days
11-Oct-15	07:00	168h 0m	Planned	Planned maintenance period ongoing.
18-Oct-15	07:00	36h 30m	Planned	Continuation of Planned Maintenance stop
20-Oct-15	00:12	1h 3m	Unplanned	Pallet change No99 on, no number on pallet removed. Stop extended dur to i-fix issues on north fan.
20-Oct-15	10:56	1h 24m	Unplanned	cable damage on Hot Sinter breaker rectified.
21-Oct-15	17:03	3h 5m	Unplanned	1005 Con stopped checked drive.drive runing warm as day inspector feedback, asked to start conveyor motor did not come in, issues with
22-Oct-15	02:52	1h 10m	Unplanned	stopped to change 1005 anti run back
23-Oct-15	11:13	4h 52m	Unplanned	Requirement stop No 4 BF off
23-Oct-15	20:10	5h 40m	Unplanned	No route to blast furnace due to high bunker levels
27-Oct-15	09:15	8h 55m	Unplanned	Plant down for requirement stop. Destocking of sinter left over from October stop to reach optimum level.
29-Oct-15	10:41	1h 58m	Unplanned	Repairs to cooler carrier ring fracture on outside by tray No14.
02-Nov-15	12:03	46m	Unplanned	Requirement stop taken to replace damaged roller on 1027, destocking continuing to bring levels back to 40kt KPI.
03-Nov-15	08:33	33m	Unplanned	Requirement stop taken to remove large blank,destocking continuing to bring levels back to 40kt KPI.
03-Nov-15	17:00	25m	Unplanned	Opportunity stop taken to replace damaged trip box on 1022
05-Nov-15	22:23	37m	Unplanned	Requirement stop taken to replace pallet, single furnace operation and hiline bunkers full
05-Nov-15	09:05	12h 6m	Unplanned	requirement stop, destocking continuing to bring levels back to 40kt KPI.
06-Nov-15	07:08	43m	Unplanned	Replacing pallet bars on pallet 110.
06-Nov-15	08:09	3h 55m	Unplanned	Stop to fit Blank south windmain, North fan oil leak,Cooler underspeed issues also investigated
06-Nov-15	12:10	2h 6m	Unplanned	Underspeed cable damage/repairs
09-Nov-15	22:58	26m	Unplanned	Wheel off pallet No34, replaced with pallet No103
09-Nov-15	11:52	1h 22m	Unplanned	Removing blanks from windmains and outlets.
11-Nov-15	22:25	39m	Unplanned	hole in pallet bars center.
12-Nov-15	05:30	11h 18m	Unplanned	Requirement stop for stock control
13-Nov-15	22:24	25m	Unplanned	Pallet change 111 off 61 on
11-Nov-15	07:11	53m	Unplanned	Plant on stop from 07:11-07:38- South fan tripped on Motor NDE horizontal vibration. Plant on stop from 11:35 -12:01 South fan tripped on
16-Nov-15	14:12	25m	Unplanned	Stop 14:12 to 14:37 north fan tripped.
17-Nov-15	22:40	38m	Unplanned	Increased waste gas pcme. Possibly due to down day rap on south precip being drawn through north.
17-Nov-15	07:44	2h 31m	Unplanned	Hole in screen
19-Nov-15	08:54	7h 38m	Planned	PM stop taken to peplace 1023 screen
22-Nov-15	20:39	36m	Unplanned	checking water cooling fans panel as none runnning and plant ripped. issues then with slam shut valve on start up.
23-Nov-15	16:50	1h 6m	Unplanned	00:00
26-Nov-15	07:00	1h 0m	Unplanned	Plant off early due to increased stock levels and make ahead of weekly

Signed on behalf of the Operator

Dated 22/01/16

Form Sinter Operational

Form Sinter Operational Cont.

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

Signed on behalf of the Operator

Dated 22/01/16

Form Sinter Operational

RELEASES INTO AIR

Operational summary for quarter ending 31-Dec-15

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*	Oct	50									
	Nov	Hourly mean									
	Dec										
A63**	Oct	25									
	Nov	Hourly mean									
	Dec										

*A10 currently non-operational, see NRW email/ Subject: Permit BL7108 - Emissions into Air Monitoring/ Sent: 27/01/2014.

**A63 currently non-operational, see NRW email/ Subject: Permit BL7108 - Emissions into Air Monitoring/ Sent: 27/01/2014.

Signed on behalf of the Operator



Dated 22/01/16

Form I&S CEMS Part 3

31-Dec-15

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / RP3730BV

Ship Discharge and Burdening

[illegible]

Signed on behalf of the Operator

Dated 22/01/16

Form Burdening 1

RELEASES INTO AIR

Operational summary for quarter ending

31-Dec-15

Operator: Location:

Location: Port Talbot Works

Permit: BL7108 / RP3730BV

	NOx (tonnes)	Lead (tonnes)	PM10 (tonnes)	CO2 (k tonnes)
Morfa	48			
Iron & Steel	588	11.9	510	1265
Total	636	11.9	510	1265

Signed on behalf of the Operator



Dated 22/01/16

Form KPI

RELEASES INTO AIR

Operational summary for the six months to

31-Dec-15

Operator: Tata Steel UK Ltd

Release Point: A1

Location: Port Talbot Works

Permit: BL7108

Release Point	Sinter Main (A1)						
	Chloride (mg/Nm3)	Fluoride (mg/Nm3)	Lead (mg/Nm3)	VOC's (mg/Nm3)	PAH's * (ug/Nm3)	Dioxins** (ng/Nm3)	Dioxins *** (ng/Nm3)
Permit limit							
Measured conc. according to condition 10.1.3b	9.90	0.4	16.6	30.2	194.5	0.67	0.70
Measured oxygen (%)	16.6	16.6	16.0	17.0	17.2	17.2	17.2
Measured conc. according to condition 10.1.3a (17%O2)	9.0	0.3	13.2	30.2	202.3	0.7	0.7
Cogeners<LoD at zero						0.67	0.70
Cogeners<LoD at LoD						0.67	0.70
Analytical method used	IC	IC	ICP MS	FID	ENV PES 821	ENV PES 100	ENV PES 100
Date of sampling	03-Nov-15	03-Nov-15	02-Nov-15	02-Dec-15	01-Dec-15	01-Dec-15	01-Dec-15
Sample start time	10:50	12:13	10:54	10:15	10:35	10:35	10:35
Sample end time	11:50	13:13	11:30	12:15	12:55	12:29	12:29
Limit of detection	0.1	0.1	0.1	1.0	2.6	0.001	0.001
Continuous particulate result during sampling (hourly mean)	60	60	36	16	48	13	13
Process status at time of sampling							
Mean sulphur content of sinter blend in use (%)	0.380	0.380	0.380	0.033	0.033	0.033	0.033
Reverts content of sinter blend in use (%)	11.6	11.6	11.6	10.0	9.9	9.9	9.9
Mean chloride content of sinter blend in use (%)	0.12	0.12	0.12	0.12	0.017	0.017	0.017
Throughput during sampling period (% of maximum)	52	52	52	56	55	55	55

* PAH's as B[a]P

** Dioxins and furans as iTEQ

*** Dioxins and furans as WHO TEQ

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

Signed on behalf of the Operator 

Dated 22/01/2016

Form Sinter DCM 2

Operational summary for the year ending 31/12/2015

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

Operational parameters: Raw materials - coal and coal blends

Month	Mean sulphur content of coal blend used to make coke (%)	Max sulphur content of the coals used to make coke (%)
1	0.75	0.77
2	0.70	0.74
3	0.68	0.74
4	0.69	0.73
5	0.69	0.71
6	0.68	0.71
7	0.68	0.69
8	0.67	0.69
9	0.69	0.72
10	0.71	0.72
11	0.84	0.86
12	0.85	0.94
Average Limit	0.72% 0.75%	- -

Signed on behalf of the Operator



Dated 22/01/2016

Form Coke Operational 1

Operational summary for the year ending 31/12/2015

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

Operational parameters: Raw materials - Blast Furnace blends

Month	Mean Zn content of sinter used to produce iron (%)	Max Zn content of sinter used to produce iron (%)	Mean Zn content of iron ore blend used to produce iron (%)	Max Zn content of iron ore blend used to produce iron (%)	Mean Zn load to Blast Furnaces (g Zn per tonne (iron produced))	Max Zn load to Blast Furnaces (g Zn per tonne (iron produced))
Jan	0.0166	0.0210	0.0061	0.0360	214.53	562.10
Feb	0.0188	0.0210	0.0056	0.0220	146.15	221.70
Mar	0.0192	0.0240	0.0034	0.0150	181.07	214.89
Apr	0.0227	0.0290	0.0028	0.0100	180.88	215.21
May	0.0197	0.0280	0.0043	0.0250	170.30	208.18
Jun	0.0159	0.0220	0.0054	0.0300	134.85	168.76
Jul	0.0209	0.0330	0.0035	0.0140	206.46	261.94
Aug	0.0180	0.0240	0.0038	0.0140	167.56	194.46
Sep	0.0182	0.0220	0.0049	0.0540	170.47	233.49
Oct	0.0174	0.0220	0.0053	0.0150	164.32 *	205.40 *
Nov	0.0168	0.0260	0.0050	0.0150	239.68	347.08
Dec	0.0130	0.0190	0.0052	0.0150	85.55 **	130.55 **
Average	0.018	-	0.005	-	172	-
Maximum	-	0.033	-	0.054	-	562

* only one week data provided, average taken for month on that figure

** only two weeks of data provided, average taken for month on those figures

Signed on behalf of the Operator



Dated 22/01/2016

Form I&S Operational 2

Operational summary for the year ending 31/12/2015

Operator: Tata Steel UK Ltd
Location: Port Talbot Works

Permit: BL7108

Energy Source	Annual Energy Consumption		
	Primary energy produced on site (MWh) *	Primary energy imported (MWh) **	CO2 released (tonnes)
Electricity	521268	845536	365637
Natural gas		1613086	317590
Coal ***		15792812	152750
Oil		18649	5110
Coke***	7445377	2835940	
Steam	3857189		
Energy Source	Secondary energy produced on site (MWh)	Secondary energy imported (MWh)	CO2 released (tonnes)
Coke oven gas	1824056		250912
Blast furnace gas	5583791		4802263
Coke (breeze)	1213822		290319
BOS gas	728415		502603

* Reported energy use shall cover 95% of all energy used by the installation. An operational record of the energy use calculation shall be maintained.

** Units of imported electricity should be multiplied by a factor of 2.6 to account for the energy lost in generation and transmission.

*** These are not a direct energy sources. 70% of the coal is used to make coke. The remaining 30% of the coal and all of the coke are used as reductants in the BF ultimately producing BFG.

Signed on behalf of the Operator

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Dated 22/01/2016

Form Energy 1

RELEASES INTO AIR

Operational summary for the year ending 31/12/2015

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / BL7108 IM (V008)

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

PARTICULATE MATTER (DISCONTINUOUS MONITORING)						
Release Point	A50A & A50B Service 4 & 5	A51 A5	A52A No.6	A52B No.7	A53 Mitchell	A62
Time and date of sampling	*	21-Apr-15 09:57	16-Jun-15 10:50	23-Jun-15 09:10	21-Apr-15 12:11	02-Dec-15 09:41
Flowrate (Nm3/hr)	*	72,876	202,163	235,890	186,125	127
Particulate measured conc. (mg/Nm3)	*	0.4	0.3	0.2	1.6	3.9
Particulate limit (mg/NM3)	50	50	50	50	50	30
Sampling method used	BS EN 13284	BS EN 13284	BS EN 13284	BS EN 13284	BS EN 13284	BS EN 13284
Analytical method used	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric
Continuous hourly monitoring result over the period	-	3.8	3.2	3.6	16.6	10.3
Fuel usages over the sampling period						
Natural gas (%)	*	0%	26%	8%	1%	9%
BF gas (%)	*	77%	46%	80%	92%	91%
Coke oven gas (%)	*	23%	28%	11%	7%	
Heavy fuel oil (%)	*	0%	0%	0%	0%	

* Data not received from third party, form will be re submitted upon receipt of report. See email sent 25/01/2015 subject: Incomplete Dec Returns

Signed on behalf of the Operator



Dated 27/01/2016

Form LCPD DCM Parts

RELEASES INTO AIR

Operational summary for the year ending 31/12/2015

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

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

VANADIUM (DISCONTINUOUS MONITORING)						
Release Point	A50A & A50B Service 4 & 5	A51 A5	A52A No.6	A52B No.7	A53 Mitchell	A62
Time and date of sampling	20-May-15 10:36	12-Feb-15 11:15	24-Feb-15 10:58	29-Apr-15 00:55	01-Dec-15 11:17	02-Dec-15 09:40
Flowrate (Nm3/hr)	228,267	91,984	190,011	150,049	175,786	261,374
Vanadium measured conc. (mg/Nm3)	0.0002	0.0005	0.0004	0.0004	0.0000	0.0000
Sampling method used	BS EN 13284	BS EN 13284	BS EN 13284	BS EN 13284	BS EN 13284	BS EN 13284
Analytical method used	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric
Partic cont hourly monitoring result over the period	13.9	5.9	6.7	11.2	9.5	3.9
Fuel usages over the sampling period						
Natural gas (%)	0	4	10	9	3	9
BF gas (%)	84	80	70	79	92	91
Coke oven gas (%)	16	17	20	11	6	
Heavy fuel oil (%)	0	0	0	0	0	

Signed on behalf of the Operator



Dated 22/01/2016

Form LCPD DCM V

RELEASES INTO AIR - NATIONAL PLAN REPORT

Operational summary for the year ending 31/12/2015

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / NP3938GZ

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

Release Point	Sulphur dioxide		Oxides of Nitrogen		Particulate Matter	
	Annual 97th percentile of valid 48 h means	Limit	Annual 95th percentile of valid 48 h means	Limit	Annual 97th percentile of valid 48 h means	Limit
A50A & A50B Service Boilers	630	880 (BFG/COG)	349	330 (BFG/COG)	9.0	55
A51 Boiler A5		880 (BFG/COG)		330 (BFG/COG)	3.5	55
A52A Boiler 6	277	880 (BFG/COG)	156	330 (BFG/COG)	4.4	55
A52B Boiler 7	195	880 (BFG/COG)	145	330 (BFG/COG)	4.5	55
A53 Mitchell Boiler		880 (BFG/COG)		330 (BFG/COG)	3.9	55
Release Point	Annual 95th percentile of valid hour means	Limit	Annual 95th percentile of valid hour means	Limit	Annual 95th percentile of valid hour means	Limit
A62 Boiler 3	43	400	68	800	6.7	60

Signed on behalf of the Operator



Dated 22/01/2016

Form LCPD Annual Concentration

RELEASES INTO AIR - NATIONAL PLAN REPORT

Operational summary for the year ending 31/12/2015

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

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

Release Point	Sulphur dioxide (Tonnes)	Oxides of Nitrogen (Tonnes)	Particulate Matter (Tonnes)
A50A	117	71	1
A50B	117	71	1
A51	30	21	0
A52A	224	118	4
A52B	156	92	2
A53	35	31	2
All LCPD release points above	679	405	10
Annual limits (A50-A53)	5000	900	150
A62	8	18	2

Signed on behalf of the Operator



Dated 22/01/2016

Form LCPD Annual 1

RELEASES INTO AIR - NATIONAL PLAN REPORT

Operational summary for the year ending 31/12/2015

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108

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

Release Point	A50A	A50B	A51	A52A	A52B	A53	A62	A50A	A50B	A51	A52A	A52B	A53	A62	A50A	A50B	A51	A52A	A52B	A53	A62	A50A	A50B	A51	A52A	A52B	A53	A62	A50A	A50B	A51	A52A	A52B	A53	A62	Total of release points (A50-A53) + A62
Parameter	Natural gas							Liquid fuels							Coke oven gas (COG)							Blast furnace gas (BFG)							Steel Plant gas (BOS)							All Fuels
Net CV of fuel burnt (GJ/T)	46.0	46.0	46.0	46.0	46.0	46.0	46.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	42.1	42.1	42.1	42.1	42.1	42.1	42.1	2.6	2.6	2.6	2.6	2.6	2.6	2.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
Annual energy usage (TJ)	33	0	24	420	331	51	151	0	4	3	23	36	3	-	503	333	76	674	427	76	-	570	449	719	2851	2352	1148	2304	-	-	4	309	246	0	14	14135
Total annual energy input (TJ)	1010 7.1%							70 0.5%							2089 15%							10393 74%							573 4%							

Biomass and other solid fuels are not burnt on these combustion plant.

Signed on behalf of the Operator : 

Dated 22/01/2016

RELEASES INTO AIR

Operational summary for the year ending 31/12/2015

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / RP3730BV

Release Points: A2, A6 ,A7 ,A8A, A8B, A9, A10, A10A, A11, A12 & A13

PARTICULATE MATTER (DISCONTINUOUS MONITORING)									
Release Point	A2	A6	A7	A8A	A8B	A9	A10	A10A	A11
Time and date of sampling	29-Sep-16 09:59	23-Nov-16 11:06	04-Feb-15 11:40	12-Oct-15 12:12	08-Oct-15 11:49	03-Feb-15 11:20	03-Sep-15 11:10	14-Oct-15 10:08	18-Feb-15 10:32
Flowrate (Nm3/hr)	688,311	128,816	151,073	669,654	648,907	1,060,146	319,941	69,395	16104
Particulate measured conc. (mg/Nm3)	17	5	6	1	10	10	3	3	3
Particulate limit (mg/Nm3)	100	50	50	25	25	25	50	50	50
Sampling method used	BS EN 13284	BS EN 13284	BS EN 13284	BS EN 13284	BS EN 13284	BS EN 13284	BS EN 13284	BS EN 13284	BS EN 13284
Analytical method used	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric
Partic CEM result over monitoring period	30			3.4	10.0	2.5	4.0	0.0	
Fuel usages over the sampling period									
Natural gas (%)		0%	0%						
BF gas (%)		61%	75%						
Coke oven gas (%)		6%	25%						
BOS (%)		33%	0%						

Signed on behalf of the Operator



Dated 22/01/2016

Form I&S DCM Part 1

RELEASES INTO AIR

Operational summary for the year ending 31/12/2015

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Permit: BL7108 / RP3730BV

Release Points: A14, A15, A16, A18, A34A, A34B, A35, A37 & A38

PARTICULATE MATTER (DISCONTINUOUS MONITORING)										
Release Point	A14	A15	A16	A18	A34A *	A34B *	A35 **	A37	A38	A39
Time and date of sampling	30-Jul-15 10:12	29-Jul-15 11:05	28-Jul-15 10:07	-	08-Sep-15 11:28	23-Sep-14 11:41	-	24-Nov-15 10:19	30-Nov-15 10:49	17-Feb-15 10:45
Flowrate (Nm3/hr)	359233	232591	289294	-	50,355	193577	-	24519	18036	28000
Particulate measured conc. (mg/Nm3)	24	4	6	-	72	59	-	13	19	11
Particulate limit (mg/Nm3)	50	50	50	25	-	-	25	25	25	25
Sampling method used	BS EN 13284	BS EN 13284	BS EN 13284	-	BS EN 13284	BS EN 13284	-	BS EN 13284	BS EN 13284	BS EN 13284
Analytical method used	Gravimetric	Gravimetric	Gravimetric	-	Gravimetric	Gravimetric	-	Gravimetric	Gravimetric	Gravimetric
Partic CEM result over monitoring period	20	3	3							
Fuel usages over the sampling period										
Natural gas (%)					48	10				
BF gas (%)										
Coke oven gas (%)					52	90				
Heavy fuel oil (%)										

* Sampling only when COG used.

** A35 Remains not operational in 2015 - see email Sent to NRW: Subject: Permit BL7108 - Emissions into Air Monitoring 27/01/2014

A18 Not sampled on safety grounds from 2012 see email Sent to NRW: Subject: Permit BL7108 - Emissions into Air Monitoring 23/01/2013

Signed on behalf of the Operator



Dated 22/01/2016

Form I&S DCM Part 2

Operational summary for the year ending 31/12/2015

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

Inputs		
Coal - Cokemaking	1.39	t/t coke
Coal - Steel Making	174.12	kg/t LS
Sinter/Pellets/Lump ores	1442	kg/t LS
Coke	217	kg/t LS
Lime	46	kg/t LS
Limestone	17	kg/t LS
Dolomet	16.5	kg/t LS
Scrap	183	kg/t LS
Water abstracted	4.5	m3/t LS
Energy	17.4	GJ/t LS
Recycled		
Reverts to Sinter Plant	102	kg/t LS
BF Slag	199	kg/t LS
BOS Slag	125	kg/t LS
Scrap (internal arisings)	85	kg/t LS
Briquettes (BOS)	0	kg/t LS
Millscale	14	kg/t LS
Recovered oil	0.0003	kg/t LS
Outputs		
Coke	901,873	Tonnes
Liquid Steel	4,266,016	Tonnes
To Air:	This data will be provided following completion of the pollution inventory. See email sent 25/01/2015 subject: Incomplete Dec Returns	
Particulate		kg/t LS
Sulphur dioxide		kg/t LS
Oxides of nitrogen		kg/t LS
To Water:		
Volume	6.88	m3/t LS
Suspended solids	313.8	g/t LS
Oil & grease	11.33	g/t LS
Total cyanide	0.15	g/t LS
Phenols	0.98	g/t LS
Ammonia	72.3	g/t LS
Metals (Fe,Zn,Pb & Cr)	2.96	g/t LS
To Land:		
Slag (BOS & Desulph)	4.2	kg/t LS
BF slurry *	6.5	kg/t LS
BOS slurry *	19.2	kg/t LS
Refractories	0.00	kg/t LS
Demolition waste	0.1	kg/t LS
Filter cake	1.5	kg/t LS
General rubbish	0.5	kg/t LS

* These 2 materials are not landfilled but stored for recycling via the Sinter and BOS Plants.

Signed on behalf of the Operator



Dated 27/01/2016

Form Site Operational

EMISSION INVENTORY - ANNUAL REPORT TO THE NRW

Operating year: 2015

Operator: Tata Steel UK Ltd

Location: Port Talbot Works

Authorisation: BA6321/ CB8401

Release Point: Sinter Main

Medium to which released	Radionuclide	Annual Release (Giga-Becquerels)	Annual Limit (Giga-Becquerels)
Air	Lead 210		
Air	Polonium 210		

* Data not received from third party, form will be re submitted upon receipt of report.

See email sent 25/01/2015 subject: Incomplete Dec Retu

Dated 27/01/2016

Schedule 9