

Releases to Controlled Waters

Release summary for the month March-16

Operator: Tata Steel UK Ltd

Release Point: W1 (LSO)

Location: Port Talbot

Permit: BL7108

	S.Solids		Oil & grease		Ammonia		Sol Zinc		Flowrate			Temperature		pH		
	Conc. (mg/l)	Load (kg)	Conc. (mg/l)	Load (kg)	Conc. (mg/l)	Load (kg)	Conc. (mg/l)	Load (kg)	Max Hr (m3/hr)	Mean (m3/hr)	Daily (m3)	Max Hr C	Mean C	Max	Min	Mean
01-Mar-16	36	2353	0	0	1	65	0.5	33	3102	2723	65355	18	17	9.1	6.5	8.4
02-Mar-16	14	853	0	0	2	122	0.5	30	3520	2540	60964	18	17	9.2	8.4	8.8
03-Mar-16	12	754	0	0	1	63	0.7	44	3293	2138	51302	19	17	9.2	7.0	8.5
04-Mar-16	6	346	0	17	1	58	0.4	23	3350	2121	50909	18	17	9.2	8.4	8.8
05-Mar-16	20	1129	1	34	5	282	0.0	0	3780	2138	51302	17	16	9.0	8.1	8.6
06-Mar-16	42	1936	5	221	2	92	0.2	9	3309	2121	50909	17	16	9.1	8.5	8.9
07-Mar-16	38	1547	3	110	4	163	1.1	45	3749	2138	51302	16	14	9.1	7.9	8.6
08-Mar-16	44	2578	18	1055	5	293	0.5	29	3745	2121	50909	19	16	9.4	8.7	9.0
09-Mar-16	30	1625	0	16	1	54	1.7	92	3273	2138	51302	19	18	9.1	8.5	8.9
10-Mar-16	22	1104	0	5	2	100	1.2	60	3234	2121	50909	16	15	9.0	8.1	8.8
11-Mar-16	18	1017	4	237	1	56	0.5	28	3807	2138	51302	16	16	9.4	8.8	9.1
12-Mar-16	12	663	4	243	3	166	0.3	17	5126	2121	50909	17	16	8.9	7.9	8.5
13-Mar-16	50	2705	2	130	1	54	0.5	27	6459	2138	51302	17	16	9.6	8.0	8.9
14-Mar-16	10	512	1	56	1	51	0.0	0	6431	2121	50909	17	17	9.5	8.1	8.9
15-Mar-16	2	134	0	13	1	73	0.7	47	6927	2138	51302	17	15	9.4	8.5	9.0
16-Mar-16	46	3041	0	26	1	66	0.3	20	7058	2121	50909	16	15	9.4	7.9	8.6
17-Mar-16	30	2019	0	27	1	67	0.1	7	7245	2138	51302	19	17	9.1	7.6	8.4
18-Mar-16	24	1287	2	86	1	54	0.3	16	7679	2121	50909	21	18	9.2	6.8	8.2
19-Mar-16	46	2502	4	190	4	218	0.4	22	7577	2138	51302	18	17	8.8	7.4	8.1
20-Mar-16	50	3204	1	70	1	64	0.4	26	7736	2121	50909	17	16	9.2	8.4	8.9
21-Mar-16	52	3359	0	0	3	194	0.6	39	7757	2138	51302	19	17	9.2	8.5	8.8
22-Mar-16	44	2042	2	97	5	232	0.6	28	7814	2121	50909	19	18	9.4	7.5	8.7
23-Mar-16	76	2644	4	136	9	313	0.5	17	7814	2138	51302	19	18	8.8	7.8	8.4
24-Mar-16	24	1104	0	0	4	184	0.8	37	7720	2121	50909	19	18	8.9	7.5	8.3
25-Mar-16	44	2721	2	118	1	62	0.4	25	7879	2138	51302	24	19	8.9	7.8	8.4
26-Mar-16	50	3287	5	309	1	66	0.3	20	7623	2121	50909	20	19	9.2	8.2	8.7
27-Mar-16	32	1946	1	43	3	182	0.3	18	7897	2138	51302	20	19	9.1	8.3	8.8
28-Mar-16	50	2777	0	0	1	56	0.2	11	7524	2121	50909	19	18	9.0	5.7	7.3
29-Mar-16	18	1334	2	133	21	1557	0.3	22	7502	2138	51302	18	17	9.2	5.6	7.6
30-Mar-16	42	2645	1	69	7	441	0.2	13	7183	2138	51302	19	18	9.3	8.9	9.1
31-Mar-16	26	1315	2	91	8	405	0.3	15	7320	2138	51302	21	18	9.4	7.8	8.9
Mean	33	1822	2	114	3	189	0.5	26	-	2163	51902	18.4	17.0	-	-	8.6
Month limit	150	-	25	-	27.5	-	2.5	-	-	-	-	-	-	-	-	-
Max	-	3359	-	1055	-	1557	-	92	7897	-	65355	23.6	19.4	9.6	5.6	9.1
Daily limit	-	27500	-	3150	-	4000	-	-	6000	-	-	45.0	40.0	10	6	-
Month total (kg)								819	Breach				Max pH Min pH			
Monthly limit (kg)								2100								

Signed on behalf of the Operator

Dated 4-May-2016

Form I&S W1 Monthly

Release summary for the month of

MAR

2016

Operator: Tata Steel UK Ltd

Transfer Points: E1, E2, E9

Location: Port Talbot

Permit: BL7108

Effluent transfer point E1: Coke Ovens BET (No.6 sump)

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	8.9	8.9	8.9	0.0
Suspended Solids	67	36	130	19
Oil & grease	112	29	372	81
Ammoniacal Nitrogen	209	70	688	148
Cyanide	0.8	0.0	2.5	0.6
Monohydric Phenol	5.2	3.0	7.6	1.6

Effluent transfer point E2: Coal stockyards (No.10 sump)

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
Suspended Solids	28	6	58	12
Oil & grease	2	0	17	3

Effluent transfer point E9: Ammonia liquor to BET

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
Ammonical Nitrogen	992	470	4180	683

Signed on behalf of the Operator



Dated 04/05/2016

Form Effluent 1

Release summary for the month of

MAR

2016

Operator: Tata Steel UK Ltd

Transfer Points: E3, E4, E5

Location: Port Talbot

Permit: BL7108

Effluent transfer point E3: Blast Furnace clarification ponds (No.1 sump)

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	7.2	6.9	7.7	0.2
Suspended Solids	27	6	90	15
Oil & grease	0	0	1	0
Soluble Zinc	0.6	0.0	2.7	0.6
Total Zinc	1.0	0.1	3.3	0.7

Effluent transfer point E4: Steel Plant clarification ponds (No.5 sump)

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	10.4	6.9	11.3	1.2
Suspended Solids	100	18	276	60
Oil & grease	1	0	7	1
Soluble Zinc	0.1	0.0	0.4	0.1
Total Zinc	0.1	0.0	0.8	0.2

Effluent transfer point E5: Concast (Concast sump)

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	7.6	6.3	8.7	0.6
Suspended Solids	27	4	200	34
Oil & grease	4	0	22	6
Soluble Zinc	0.1	0.0	0.9	0.2
Total Zinc	0.2	0.0	1.5	0.3

Signed on behalf of the Operator



Dated 04/05/2016

Form Effluent 2

Release summary for the month of

MAR

2016

Operator: Tata Steel UK Ltd

Transfer Points: E6, E7, E8

Location: Port Talbot

Permit: BL7108

Effluent transfer point E6: Hot rolling mill (HM canals)

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	7.4	7.0	7.8	0.2
Suspended Solids	58	4	196	45
Oil & grease	58	6	370	65

Effluent transfer point E7: CAPL effluent treatment plant (CAPL sump)

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	7.7	7.0	8.5	0.5
Suspended Solids	177	12	1088	207
Oil & grease	224	20	970	194

Effluent transfer point E8: Cold mill effluent (Final effluent sump)

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	6.6	4.4	9.9	1.1
Suspended Solids	258	60	1722	301
Oil & grease	88	10	360	71

Signed on behalf of the Operator



Dated 04/05/2016

Form Effluent 3

Releases to Controlled Waters

Release summary for the quarter Jan to Mar-16

Operator: Tata Steel UK Ltd

Release Point: W1

Location: Port Talbot

Permit: BL7108

Parameter	Reporting Units	Jan	Month Feb	Mar	Limit
Phenol	Max load (kg/day)	56.9	301.5	96.9	350
	Mean load (kg/day)	6.5	15.0	13.5	
	Max conc. (mg/l)	0.8	4.5	1.9	
	Mean conc. (mg/l)	0.1	0.3	0.3	2
Soluble chromium	Max load (kg/day)	6.1	7.2	0.0	
	Mean load (kg/day)	0.7	0.6	0.0	
	Load (kg/mth)	23.14	17.66	0.00	200
	Max conc. (mg/l)	0.10	0.10	0.00	
	Mean conc. (mg/l)	0.01	0.01	0.00	0.2
Soluble lead	Max load (kg/day)	10.84	7.23	0.00	
	Mean load (kg/day)	1.16	0.78	0.00	
	Load (kg/mth)	36.0	22.7	0.0	300
	Max conc. (mg/l)	0.20	0.10	0.00	
	Mean conc. (mg/l)	0.02	0.02	0.00	0.3
Soluble iron	Max load (kg/day)	29.8	28.9	55.7	
	Mean load (kg/day)	6.6	5.4	6.0	
	Max conc. (mg/l)	0.4	0.5	1.6	
	Mean conc. (mg/l)	0.1	0.1	0.1	
Free cyanide	Max load (kg/day)	7.0	0.0	6.6	45
	Mean load (kg/day)	0.6	0.0	0.7	
	Max conc. (mg/l)	0.1	0.0	0.1	
	Mean conc. (mg/l)	0.01	0.00	0.01	0.2
PAH's	Load (kg/mth)	0.0	0.1	0.6	250
	Concentration (mg/l)	0.00002	0.00005	0.0003	1

Signed on behalf of the Operator



Dated 4-Jul-2016

Form I&S W1 Quarterly

Releases to Controlled Waters

Release summary for the quarter Jan to Mar-16

Operator: Tata Steel UK Ltd

Release Point: W5

Location: Port Talbot

Permit: BL7108

Parameter	Reporting Units	Jan	Month Feb	Mar	Limit
Dock Return	Max. monthly conc. of return (mg/l)	61.0	9.4	42.3	20 above background
Suspended solids	Max daily back-ground conc. (mg/l)	76.0	64.0	32.0	
	Mean background conc. (mg/l)	23.7	20.9	14.7	
Dock Flow	Max daily flowrate (m3/day)	76288	87905	87905	350000
	Mean daily flowrate (m3/day)	74375	67989	56163	
	Max flowrate (m3/hour)	3346	5142	5142	16000
	Mean flowrate (m3/hour)	3099	2833	2341	
Abstracted flows (Afan docks feeder)	Max daily abstraction rate (m3/day)	0	0	24276	
	Mean daily abstraction rate (m3/day)	0	0	17143	
Dock Return Temperature	Max daily discharge temperature (C)	18	18	18	36
	Mean daily discharge temperature (C)	17	17	17	

Signed on behalf of the Operator



Dated 4-May-2016

Form I&S W5

Releases to Controlled Waters

Release summary for the quarter Jan to Mar

Operator: Tata Steel UK Ltd

Release Point: W3 (ABO)

Location: Port Talbot

Permit: BL7108

Parameter	Reporting Units	Jan	Month Feb	Mar	Limit
Suspended solids	Maximum daily* concentration (mg/)	32	73	76	200
	Mean daily concentration (mg/)	17	20	25	
Oil and grease	Maximum daily concentration (mg/)	4	4	6	20
	Mean daily concentration (mg/)	2	2	2	
Number of days of discharge in the month		15	28	17	

Signed on behalf of the Operator

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Dated 4-May-2016

Form I&S W3

Releases to Controlled Waters

Release summary for the quarter Jan to Mar

Operator: Tata Steel UK Ltd

Release Point: W4

Location: Port Talbot

Permit: BL7108 / RP3730BV

Release Point W4: Spot sample results during storm discharge					
Parameter	Reporting Units	Jan	Month Feb	Mar	Limit
pH	Max daily	9.9	9.1	9.6	
	Mean daily	9.5	9.1	9.6	
	Min daily	0.0	0.0	0.0	
Suspended solids (mg/l)	Max daily conc.	1800.0	80.0	108.0	
	Mean daily conc.	741.3	61.0	108.0	
Total iron (mg/l)	Max daily conc.	17.0	14.7	0.1	
	Mean daily conc.	10.3	12.4	0.1	
Soluble iron (mg/l)	Max daily conc.	0.0	0.1	0.1	
	Mean daily conc.	0.0	0.1	0.1	
Oil and grease (mg/l)	Max daily conc.	0.0	0.1	0.1	
	Mean daily conc.	2.3	3.2	0.1	
Number of days of discharge in the month (daily rainfall > 15 mm).		1.0	1.6	0.1	

Date of monthly sample	Suspended solids	pH	Total iron	Soluble iron	Oil and grease
11-Jan-15	168	9.90	0.99	0.05	2.30
18-Feb-15	80	9.10	10.00	0.05	0.05
01-Mar-15	108	9.60	0.09	0.10	0.05

Signed on behalf of the Operator



Dated

4-May-2016

Form I&S W4