

Releases to Controlled Waters

Release summary for the month December-15

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-Dec-15	16	1239	1	93	9	666	0.1	8	2487	3226	77414	20	19	8.1	7.4	7.8		
02-Dec-15	28	2299	0	0	0	25	0.2	16	2490	3422	82116	20	18	8.1	7.4	7.8		
03-Dec-15	42	3560	1	93	7	593	0.0	0	2490	3531	84752	21	19	8.1	7.4	7.8		
04-Dec-15	40	3321	1	75	5	415	0.1	8	2514	3459	83021	22	19	8.1	7.4	7.8		
05-Dec-15	34	3062	1	45	8	721	0.2	18	2523	3753	90069	21	19	8.1	7.4	7.8		
06-Dec-15	40	3184	3	271	10	796	0.1	8	2523	3317	79608	23	20	8.1	7.4	7.8		
07-Dec-15	68	5885	6	493	8	692	0.2	17	2523	3606	86550	21	19	8.1	7.4	7.8		
08-Dec-15	20	1687	5	422	3	253	0.2	17	2523	3514	84336	17	15	8.1	7.4	7.8		
09-Dec-15	22	1830	5	424	10	832	0.3	25	2523	3467	83204	15	14	8.2	7.4	7.8		
10-Dec-15	20	1654	1	99	7	546	0.4	33	2523	3447	82717	11	9	8.3	7.4	7.9		
11-Dec-15	48	3836	0	8	7	575	0.3	24	2523	3330	79915	17	13	8.3	7.4	7.9		
12-Dec-15	26	2154	4	340	1	83	0.3	25	2523	3452	82859	15	15	8.3	7.4	7.9		
13-Dec-15	32	2383	4	290	2	149	0.3	22	2523	3103	74473	19	16	8.4	7.4	7.9		
14-Dec-15	52	3989	4	307	8	614	0.3	23	2523	3196	76706	19	19	8.6	7.4	8.0		
15-Dec-15	26	2083	6	513	6	481	0.3	24	2523	3339	80132	22	19	8.6	7.4	8.0		
16-Dec-15	40	3055	2	153	9	687	0.4	31	2523	3183	76383	19	16	8.6	7.4	8.0		
17-Dec-15	14	1096	5	407	5	391	0.3	23	2523	3261	78270	12	12	8.6	7.4	8.0		
18-Dec-15	40	2876	1	72	6	431	0.2	14	2523	2996	71901	12	12	8.6	7.4	8.1		
19-Dec-15	22	1513	1	48	8	550	0.4	28	2523	2865	68760	20	16	8.6	7.4	8.1		
20-Dec-15	34	2543	0	7	10	748	0.2	15	2523	3117	74803	23	20	8.6	7.4	8.1		
21-Dec-15	24	1506	3	201	7	439	1.6	100	2523	2615	62769	19	18	8.6	7.5	8.1		
22-Dec-15	54	2936	3	169	9	489	0.3	16	2523	2265	54362	19	19	8.6	7.5	8.2		
23-Dec-15	36	2571	5	386	11	786	0.4	29	2523	2976	71419	23	20	8.6	7.7	8.2		
24-Dec-15	128	9521	2	141	21	1562	1.2	89	2523	3099	74384	22	20	8.6	7.7	8.2		
25-Dec-15	42	2862	2	136	4	273	0.5	34	2627	2839	68138	20	18	8.6	7.7	8.3		
26-Dec-15	40	3087	0	0	4	309	0.4	31	2655	3215	77163	18	16	8.6	7.7	8.3		
27-Dec-15	58	3600	0	0	2	124	1.3	81	2655	2586	62069	18	17	8.6	7.7	8.3		
28-Dec-15	44	2969	1	34	2	135	0.3	20	2655	2812	67479	18	16	8.6	7.7	8.3		
29-Dec-15	34	2143	0	13	3	189	0.3	19	2655	2626	63025	18	17	8.6	7.7	8.3		
30-Dec-15	78	4438	1	34	3	171	0.3	17	2655	2371	56896	17	16	8.6	7.7	8.4		
31-Dec-15	56	3030	4	200	1	54	0.3	16	2655	2254	54106	18	17	8.6	8.1	8.4		
Mean	41	2965	2	177	6	477	0.4	27	-	3105	74510	18.7	16.9	-	-	8.0		
Month limit	150	-	25	-	27.5	-	2.5	-	-	-	-	-	-	-	-	-		
Max	-	9521	-	513	-	1562	-	100	2655	-	90069	23.3	20.0	8.6	7.4	8.4		
Daily limit	-	27500	-	3150	-	4000	-	-	6000	-	-	45.0	40.0	10	6	-		
Month total (kg)								832	Max pH								Min pH	
Monthly limit (kg)								2100										

Signed on behalf of the Operator



Dated 22-Jan-2016

Form I&S W1 Monthly

Release summary for the month of

DEC

2015

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	164	27	1650	296
Oil & grease	75	21	277	63
Ammoniacal Nitrogen	174	60	293	47
Cyanide	1.3	0.3	2.1	0.4
Monohydric Phenol	4.5	2.0	11.5	3.5

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

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
Suspended Solids	55	7	363	74
Oil & grease	3	0	19	4

Effluent transfer point E9: Ammonia liquor to BET

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
Ammonical Nitrogen	740	500	1260	180

Signed on behalf of the Operator



Dated 22/01/2016

Form Effluent 1

Release summary for the month of

DEC

2015

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	7.5	6.8	8.6	0.4
Suspended Solids	31	5	84	19
Oil & grease	1	0	2	1
Soluble Zinc	0.7	0.1	2.4	0.6
Total Zinc	1.3	0.2	4.3	0.9

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

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	8.5	6.7	9.9	0.8
Suspended Solids	100	13	816	180
Oil & grease	1	0	9	2
Soluble Zinc	0.1	0.0	0.9	0.2
Total Zinc	0.7	0.1	3.0	0.7

Effluent transfer point E5: Concast (Concast sump)

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	7.8	7.1	8.4	0.4
Suspended Solids	63	7	330	82
Oil & grease	11	1	69	13
Soluble Zinc	0.1	0.0	0.3	0.1
Total Zinc	0.2	0.0	1.4	0.3

Signed on behalf of the Operator



Dated 22/01/2016

Form Effluent 2

Release summary for the month of

DEC

2015

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	7.6	6.8	8.2	0.4
Suspended Solids	64	14	252	47
Oil & grease	9	3	23	4

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

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	6.9	6.5	7.4	0.2
Suspended Solids	208	42	615	146
Oil & grease	91	10	345	70

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

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	7.7	6.0	10.0	1.1
Suspended Solids	330	50	802	199
Oil & grease	54	1	285	72

Signed on behalf of the Operator



Dated 22/01/2016

Form Effluent 3

Releases to Controlled Waters

Release summary for the quarter Oct to Dec-15

Operator: Tata Steel UK Ltd

Release Point: W1

Location: Port Talbot

Permit: BL7108

Parameter	Reporting Units	Oct	Month Nov	Dec	Limit
Phenol	Max load (kg/day)	168.2	50.8	14.4	350
	Mean load (kg/day)	11.9	2.8	1.4	
	Max conc. (mg/l)	2.3	0.7	0.2	
	Mean conc. (mg/l)	0.2	0.0	0.0	2
Soluble chromium	Max load (kg/day)	9.7	280.7	0.0	
	Mean load (kg/day)	1.6	10.8	0.0	
	Load (kg/mth)	50.22	325.41	0.00	200
	Max conc. (mg/l)	0.10	8.90	0.00	
	Mean conc. (mg/l)	0.02	0.33	0.00	0.2
Soluble lead	Max load (kg/day)	9.71	29.38	8.32	
	Mean load (kg/day)	1.58	2.34	3.34	
	Load (kg/mth)	49.0	70.2	103.6	300
	Max conc. (mg/l)	0.10	0.40	0.10	
	Mean conc. (mg/l)	0.02	0.04	0.05	0.3
Soluble iron	Max load (kg/day)	48.0	16.4	15.3	
	Mean load (kg/day)	5.5	4.5	5.0	
	Max conc. (mg/l)	0.7	0.3	0.2	
	Mean conc. (mg/l)	0.1	0.1	0.1	
Free cyanide	Max load (kg/day)	7.5	18.6	8.3	45
	Mean load (kg/day)	1.1	2.4	0.8	
	Max conc. (mg/l)	0.1	0.3	0.1	
	Mean conc. (mg/l)	0.02	0.04	0.01	0.2
PAH's	Load (kg/mth)	7.5	3.0	9.6	250
	Concentration (mg/l)	0.039	0.007	0.067	1

Signed on behalf of the Operator



Dated 22-Jan-2016

Form I&S W1 Quarterly

Releases to Controlled Waters

Release summary for the quarter Oct to Dec-15

Operator: Tata Steel UK Ltd

Release Point: W5

Location: Port Talbot

Permit: BL7108

Parameter	Reporting Units	Oct	Month Nov	Dec	Limit
Dock Return	Max. monthly conc. of return (mg/l)	32.0	38.0	32.0	20 above background
Suspended solids	Max daily back-ground conc. (mg/l)	104.0	60.0	66.0	
	Mean background conc. (mg/l)	21.0	25.8	23.9	
Dock Flow	Max daily flowrate (m3/day)	233490	77549	71240	350000
	Mean daily flowrate (m3/day)	216346	72971	70913	
	Max flowrate (m3/hour)	9828	4663	3326	16000
	Mean flowrate (m3/hour)	9013	3040	3104	
Abstracted flows (Afan docks feeder)	Max daily abstraction rate (m3/day)	20498	23707	23210	
	Mean daily abstraction rate (m3/day)	14395	15724	22375	
Dock Return Temperature	Max daily discharge temperature (C)	24	23	18	36
	Mean daily discharge temperature (C)	23	22	18	

Signed on behalf of the Operator



Dated 27-Jan-2016

Form I&S W5

Releases to Controlled Waters

Release summary for the quarter Oct to Dec

Operator: Tata Steel UK Ltd

Release Point: W3 (ABO)

Location: Port Talbot

Permit: BL7108

Parameter	Reporting Units	Oct	Month Nov	Dec	Limit
Suspended solids	Maximum daily concentration (mg/)	156	71	75	200
	Mean daily concentration (mg/)	33	23	21	
Oil and grease*	Maximum daily concentration (mg/)	9	19	10	20
	Mean daily concentration (mg/)	2	7	3	
Number of days of discharge in the month		0	25	28	

Signed on behalf of the Operator



Dated 22-Jan-2016

Form I&S W3

Releases to Controlled Waters

Release summary for the quarter Oct to Dec

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	Oct	Month Nov	Dec	Limit
pH	Max daily	7.5	9.4	9.2	
	Mean daily	7.5	8.7	8.5	
	Min daily	7.5	8.4	8.0	
Suspended solids (mg/l)	Max daily conc.	4.0	548.0	68.0	
	Mean daily conc.	4.0	187.5	36.0	
Total iron (mg/l)	Max daily conc.	0.5	6.6	3.6	
	Mean daily conc.	0.5	2.6	1.5	
Soluble iron (mg/l)	Max daily conc.	0.0	0.1	0.1	
	Mean daily conc.	0.0	0.0	0.0	
Oil and grease (mg/l)	Max daily conc.	0.1	6.6	0.2	
	Mean daily conc.	0.1	2.0	0.1	
Number of days of discharge in the month (daily rainfall > 15 mm).		0.0	3.0	2.0	

Date of monthly sample	Suspended solids	pH	Total iron	Soluble iron	Oil and grease
01-Oct-14	4	7.50	0.54	0.005	0.10
11-Nov-14	100	8.80	1.30	0.005	1.40
04-Dec-14	38	9.70	0.50	0.005	0.05

Signed on behalf of the Operator



Dated 22-Jan-2016

Form I&S W4

Releases to Controlled Waters

Annual release summary for the year

2015

Operator: Tata Steel UK Ltd **Release Point:** W1

Location: Port Talbot **Permit:** BL7108

Substance	Annual Release (kg)	Limit (kg)
Suspended solids	1338867	2250000
Oil and grease	48320	360000
Free cyanide	625	2700
Ammoniacal nitrogen	308342	400000
Phenol	4163	18000
Soluble lead	296	
Soluble chromium	391	
PAH's*	512	
Total iron	74331	
Soluble iron	1122	
Total aluminum	18321	
Total manganese	19073	
Total zinc	24171	
Soluble zinc	10809	

Signed on behalf of the Operator



Dated 22-Jan-2016

Form I&S Annual W1