

Releases to Controlled Waters

Release summary for the month September-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-Sep-15	16	1547	0	10	8	773	0.7	68	2268	4028	96662	28	25	8.6	7.7	8.1
02-Sep-15	28	1971	0	7	6	422	0.8	56	2339	2932	70376	30	28	8.1	7.0	7.7
03-Sep-15	40	2907	1	73	7	509	1.3	94	1545	3028	72672	32	30	8.5	6.4	7.8
04-Sep-15	40	2655	1	46	7	465	1.6	106	2309	2766	66384	34	33	9.2	8.1	8.7
05-Sep-15	28	1989	2	107	8	568	1.5	107	2709	2959	71025	35	31	9.0	8.0	8.6
06-Sep-15	70	5319	3	198	7	532	1.7	129	2945	3166	75984	40	33	8.9	7.3	8.3
07-Sep-15	86	6344	1	81	10	738	1.3	96	2560	3074	73769	31	30	8.1	7.2	7.7
08-Sep-15	20	1365	2	109	7	478	1.5	102	2743	2844	68254	37	33	8.3	7.2	7.7
09-Sep-15	36	2414	2	154	10	670	1.6	107	2446	2794	67049	34	32	8.2	7.6	7.9
10-Sep-15	36	2481	1	90	12	827	0.6	41	2148	2872	68926	36	33	8.3	7.7	7.9
11-Sep-15	46	4474	0	10	11	1070	0.5	49	2659	4052	97250	35	34	8.0	7.4	7.7
12-Sep-15	20	1554	1	39	4	311	0.4	31	2620	3237	77687	37	34	8.1	7.4	7.7
13-Sep-15	42	3152	7	510	10	750	0.2	15	2433	3127	75043	40	36	8.4	7.2	7.8
14-Sep-15	38	2876	1	106	10	757	0.3	23	2176	3153	75681	36	32	8.2	7.5	7.8
15-Sep-15	64	6032	4	368	9	848	0.4	38	2886	3927	94249	39	34	7.8	7.2	7.5
16-Sep-15	48	3555	3	215	7	518	0.4	30	3014	3086	74053	38	31	7.4	7.0	7.2
17-Sep-15	42	3982	3	265	1	95	0.5	47	2939	3951	94814	31	29	7.6	6.8	7.1
18-Sep-15	20	2098	2	168	11	1154	0.3	31	2815	4370	104878	37	31	7.3	6.8	7.0
19-Sep-15	50	4168	0	0	4	333	0.0	0	2329	3473	83359	39	34	7.5	6.9	7.2
20-Sep-15	58	4306	1	59	10	742	0.0	0	2102	3093	74234	32	32	7.7	6.9	7.2
21-Sep-15	66	5635	0	26	7	598	0.0	0	2997	3558	85384	31	31	8.1	7.5	7.9
22-Sep-15	54	4250	0	31	3	236	0.5	39	3453	3280	78709	34	31	8.2	7.7	8.0
23-Sep-15	58	4391	0	23	12	909	0.2	15	3412	3155	75715	34	32	8.2	7.6	8.0
24-Sep-15	38	3222	1	51	8	678	0.2	17	3150	3533	84792	33	30	8.3	7.7	8.1
25-Sep-15	32	2589	1	81	5	405	0.2	16	3032	3371	80905	33	29	7.7	7.1	7.5
26-Sep-15	20	1486	1	82	3	223	0.2	15	3010	3096	74297	24	21	8.3	7.2	7.6
27-Sep-15	40	3110	3	210	4	311	0.3	23	2618	3240	77758	23	22	8.0	6.9	7.5
28-Sep-15	26	1866	3	194	6	431	0.2	14	2745	2990	71755	22	20	7.2	6.7	7.0
29-Sep-15	30	2101	0	7	14	980	0.4	28	2831	2917	70019	21	19	7.7	7.0	7.3
30-Sep-15	274	20622	5	369	11	828	0.2	15	2757	3136	75261	30	23	8.0	6.8	7.4
Mean	49	3815	2	123	8	605	0.6	45	-	3274	78565	32.9	29.8	-	-	7.7
Month limit	150	-	25	-	27.5	-	2.5	-	-	-	-	-	-	-	-	-
Max	-	20622	-	510	-	1154	-	129	3453	-	104878	40.2	36.2	9.2	6.4	8.7
Daily limit	-	27500	-	3150	-	4000	-	-	6000	-	-	45.0	40.0	10	6	-

Month total (kg) 1354
Monthly limit (kg) 2100

Max pH Min pH

Signed on behalf of the Operator

Dated 21-Oct-2015

Form I&S W1 Monthly

Release summary for the month of **sep** **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	83	46	172	38
Oil & grease	26	5	115	23
Ammoniacal Nitrogen	105	30	201	38
Cyanide	0.3	0.1	0.8	0.2
Monohydric Phenol	1.9	0.1	3.7	1.7

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

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
Suspended Solids	117	14	880	180
Oil & grease	4	0	52	10

Effluent transfer point E9: Ammonia liquor to BET

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
Ammonical Nitrogen	675	230	3370	583

Signed on behalf of the Operator



Dated 21/10/2015

Form Effluent 1

Release summary for the month of

sep

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	7.4	6.7	8.3	0.3
Suspended Solids	27	6	62	17
Oil & grease	0	0	2	0
Soluble Zinc	1.1	0.1	4.6	1.3
Total Zinc	1.5	0.3	4.9	1.3

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

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	9.6	7.8	10.5	0.7
Suspended Solids	100	10	822	158
Oil & grease	1	0	5	1
Soluble Zinc	0.2	0.0	1.6	0.3
Total Zinc	0.2	0.0	2.0	0.4

Effluent transfer point E5: Concast (Concast sump)

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	7.5	6.8	8.4	0.4
Suspended Solids	31	1	86	27
Oil & grease	5	0	19	5
Soluble Zinc	0.1	0.0	0.7	0.1
Total Zinc	0.2	0.0	0.8	0.2

Signed on behalf of the Operator



Dated 21/10/2015

Form Effluent 2

Release summary for the month of

sep

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	7.2	8.1	0.2
Suspended Solids	113	12	858	182
Oil & grease	15	3	103	19

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

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	9.3	6.8	9.9	0.9
Suspended Solids	491	76	1284	305
Oil & grease	126	1	205	45

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

	Average (mg/l)	Minimum (mg/l)	Maximum (mg/l)	Standard deviation
pH	8.1	6.7	9.6	0.7
Suspended Solids	578	170	1070	255
Oil & grease	8	0	23	6

Signed on behalf of the Operator



Dated 21/10/2015

Form Effluent 3

Releases to Controlled Waters

Release summary for the quarter Jul to Sep

Operator: Tata Steel UK Ltd

Release Point: W1

Location: Port Talbot

Permit: BL7108

Parameter	Reporting Units	Jul	Month Aug	Sep	Limit
Phenol	Max load (kg/day)	86.9	10.3	211.9	350
	Mean load (kg/day)	13.2	1.2	14.5	
	Max conc. (mg/l)	1.2	0.1	2.8	
	Mean conc. (mg/l)	0.8	0.0	0.2	2
Soluble chromium	Max load (kg/day)	5.6	0.0	8.1	
	Mean load (kg/day)	0.3	0.0	0.5	
	Load (kg/mth)	10.58	0.00	15.50	200
	Max conc. (mg/l)	0.10	0.00	0.10	
	Mean conc. (mg/l)	0.01	0.00	0.01	0.2
Soluble lead	Max load (kg/day)	5.81	9.28	10.49	
	Mean load (kg/day)	1.22	1.00	1.42	
	Load (kg/mth)	37.9	31.0	42.5	300
	Max conc. (mg/l)	0.10	0.10	0.10	
	Mean conc. (mg/l)	0.03	0.01	0.02	0.3
Soluble iron	Max load (kg/day)	41.4	18.7	25.4	
	Mean load (kg/day)	7.1	2.5	3.9	
	Max conc. (mg/l)	0.6	0.2	0.3	
	Mean conc. (mg/l)	0.1	0.0	0.1	
Free cyanide	Max load (kg/day)	11.6	15.5	7.4	45
	Mean load (kg/day)	3.0	0.8	0.5	
	Max conc. (mg/l)	0.2	0.2	0.1	
	Mean conc. (mg/l)	0.06	0.01	0.01	0.2
PAH's	Load (kg/mth)	7.2	5.5	3.69	250
	Concentration (mg/l)	0.039	0.007	0.067	1

Signed on behalf of the Operator



Dated 21-Oct-2015

Form I&S W1 Quarterly

Releases to Controlled Waters

Release summary for the quarter Jul to Sep

Operator: Tata Steel UK Ltd

Release Point: W5

Location: Port Talbot

Permit: BL7108

Parameter	Reporting Units	Jul	Month Aug	Sep	Limit
Dock Return	Max. monthly conc. of return (mg/l)	28.0	84.0	132.0	20 above background
Suspended solids	Max daily back-ground conc. (mg/l)	38.0	32.0	36.0	
	Mean background conc. (mg/l)	19.9	16.5	15.2	
Dock Flow	Max daily flowrate (m3/day)	75622	101826	101826	350000
	Mean daily flowrate (m3/day)	71149	76553	76553	
	Max flowrate (m3/hour)	3236	7327	7327	16000
	Mean flowrate (m3/hour)	2964	3190	3190	
Abstracted flows (Afan docks feeder)	Max daily abstraction rate (m3/day)	21086	20170	20170	
	Mean daily abstraction rate (m3/day)	19731	19303	19303	
Dock Return Temperature	Max daily discharge temperature (C)	29	30	30	36
	Mean daily discharge temperature (C)	28	28	28	

Signed on behalf of the Operator



Dated 21-Oct-2015

Form I&S W5

Releases to Controlled Waters

Release summary for the quarter Jul to Sep

Operator: Tata Steel UK Ltd

Release Point: W3 (ABO)

Location: Port Talbot

Permit: BL7108

Parameter	Reporting Units	Jul	Month Aug	Sep	Limit
Suspended solids	Maximum daily* concentration (mg/)	51	378	450	200
	Mean daily concentration (mg/)	85	57	28	
Oil and grease	Maximum daily concentration (mg/)	5	5	4	20
	Mean daily concentration (mg/)	2	2	1	
Number of days of discharge in the month		0	0	1	

* Potential breach on 02/08 and 28/09 - no breach due to high tide and associated suspended solids related to this.

Signed on behalf of the Operator



Dated 21-Oct-2015

Form I&S W3

Releases to Controlled Waters

Release summary for the quarter Jul to Sep

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	Jul	Month Aug	Sep	Limit
pH	Max daily	9.2	9.4	9.2	
	Mean daily	8.6	8.7	8.5	
	Min daily	7.0	7.8	7.5	
Suspended solids (mg/l)	Max daily conc.	8.0	14.0	13.0	
	Mean daily conc.	8.0	14.0	13.0	
Total iron (mg/l)	Max daily conc.	5.7	1.0	13.0	
	Mean daily conc.	5.7	1.0	13.0	
Soluble iron (mg/l)	Max daily conc.	3.3	0.0	0.1	
	Mean daily conc.	3.3	0.0	0.1	
Oil and grease (mg/l)	Max daily conc.	0.4	0.1	0.1	
	Mean daily conc.	0.4	0.1	0.1	
Number of days of discharge in the month (daily rainfall > 15 mm).		0.0	1.0	0.0	

Date of monthly sample	Suspended solids	pH	Total iron	Soluble iron	Oil and grease
16-Jul-15	10	8.30	0.68	0.00	0.70
18-Aug-15	102	8.40	1.20	0.05	6.60
09-Sep-15	20	8.00	0.39	0.05	0.10

Signed on behalf of the Operator



Dated 21-Oct-2015

Form I&S W4