Surface Water H1 Risk Assessment Phase 1, Part A Screening Tests

Cells highlighted amber are not an operational EQS given in the Surface Water Pollution Risk Assessment .gov.uk webpage.

RFR: Watercourse Q95 flow m^3/s	EFR: Effluent flow rate (maximum) m^3/s	EFR: Effluent flow rate (mean) m^3/s
0.0168	0.00616	0.000231

Pre-SCREENING Is the substance present in the discharge?

SCREENING TEST 1 Does mean release concentration (RC) exceed 10% EQS?

SCREENING TEST 2 does the process contribution (PC) exceed 4 percent of the EQS?

SCREENING TEST 3 Does the difference between upstream quality and the Predicted Environmental Concentration (PEC) exceed 10% of the EQS

SCREENING TEST 4 Does the PEC exceed the EQS in the receiving water downstream of the discharge

Constituents	Unit	Limit of Detection	Freshwater EQS (Annual Average)	Freshwater EQS - Maximum allowable concentration (MAC)	Number of Samples	Minimum Value in discharge	Maximum Value in discharge	discharge mean (values below LOD treated as LOD)	count of tests	Is the substance a Priority Hazardous Substance with a Significant Load limit?	Is the substance measured above LOD in the discharge?	Is the LOD sufficiently low (LOD <10% of EQS ?)	10% EQS (AA)	Test failed? (AA)	10% EQS (MAC); where available	Test failed? (MAC)	Process Contribution PC (worst)	4% EQS (AA)	Test 1 failed? (AA)	Process Contribution PC (max)	10% EQS (MAC); where available	Test failed? (MAC)	Predicted Environmental Concentration (PEC) (mean) (mg/l)	Predicted Environmental Concentration (PEC) (max) (mg/l)	Test 3 failed? (AA)	Bc (MAC) Maximum Upstream Concentration (values below LOD treated as LOD) (mg/l)	Predicted Environmental Concentration (PEC) (max) (mg/l)	Test 3 failed? (MAC)	AA test failed? PAA PEC above AA EQS	MAC test failed? MAC PEC above MAC EQS
Phosphorus (Dissolved)	mg/l	0.02	0.008	N/A	15	0.02	0.75	0.184	15	12	Yes	No	0.0008	Yes	N/A	N/A	0.0025	0.00032	Yes	N/A	N/A	N/A	0.22034	0.220833333	NO	0.52000	0.363	N/A	Yes	NO
Nitrite	mg/l	0.02	0.01	N/A	15	0.02	1.3	0.228	15	11	Yes	No	0.0010	Yes	N/A	N/A	0.0031	0.00040	Yes	N/A	N/A	N/A	0.60481	0.61	NO	1.10000	0.795	N/A	Yes	NO
Dissolved Chromium (Trivalent)	mg/l	0.001	0.0047	0.032	11	0.001	0.0240	0.00764	11	8	Yes	No	0.0005	Yes	0.0032	Yes	0.0001	0.00019	No	0.0064	0.001280	Yes	0.01076	0.0108	NO	0.02000	0.014	No	Yes	NO
Benzo[a]pyrene	mg/l	0.00001	0.00000017	0.00027	12	0.0005	0.00050	0.00050	12	0	No	No	0.00000002	Yes	2.7E-05	Yes	6.8E-06	0.00000	Yes	0.0001	0.000011	Yes	0.00009	8.44444E-05	Yes	0.00050	0.000	No	Yes	NO
Cyanide (Free) Low-Level	mg/l	0.005	0.001	0.005	15	0.005	0.005	0.0050	15	0	No	No	0.0001	Yes	0.0005	Yes	6.8E-05	0.00004	Yes	0.0013	0.000200	Yes	0.00500	0.005	NO	0.00500	0.005	No	Yes	NO
Anthracene	mg/l	0.00001	0.00001	0.0001	12	0.0005	0.00050	0.00050	12	0	No	No	0.0000010	Yes	0.00001	Yes	6.8E-06	0.00000	Yes	0.0001	0.000004	Yes	0.00009	8.44444E-05	NO	0.00050	0.0002	No	NO	yes
Benzo[a]pyrene	mg/l	0.00001	0.00000017	0.00027	15	0.00001	0.000010	0.000010	15	0	No	No	0.0000000	Yes	2.7E-05	No	1.4E-07	0.00000	Yes	0.0000	0.000011	No	0.00008	8.44444E-05	NO	0.00050	0.0001	No	Yes	NO
Fluoranthene	mg/l	0.00001	0.0000063	0.00012	12	0.0005	0.00050	0.00050	12	0	No	No	0.000001	Yes	1.2E-05	Yes	6.8E-06	0.00000	Yes	0.0001	0.000005	Yes	0.00009	8.44444E-05	Yes	0.00050	0.0002	No	Yes	yes
Hexachlorobenzene	mg/l	0.0005	0.00005	0.00005	12	0.0005	0.00050	0.00050	12	0	No	No	0.000005	Yes	5E-06	Yes	6.8E-06	0.00000	Yes	0.0001	0.000002	Yes	0.00050	0.0005	NO	0.00050	0.001	No	Yes	yes
Dissolved Chromium (Hexavalent)	mg/l	0.02	0.0034	N/A	10	0.02	0.020	0.020	10	0	No	No	0.000340	Yes	N/A	N/A	0.00027	0.00014	Yes	N/A	N/A	N/A	0.02000	0.02	NO	0.02000	0.020	N/A	Yes	NO
Pentachlorophenol	mg/l	0.0005	0.0004	0.001	12	0.0005	0.0005	0.0005	12	0	No	No	0.000040	Yes	0.0001	Yes	6.8E-06	0.00002	No	0.0001	0.000040	Yes	0.00050	0.0005	NO	0.00050	0.001	No	Yes	NO
Nickel (Dissolved)	mg/l	0.001	0.017	0.034	15	0.0005	0.018	0.0033	15	10	Yes	No	0.0017	Yes	0.0034	Yes	4.5E-05	0.00068	No	0.0048	0.001360	Yes	0.00230	0.002281111	NO	0.00700	0.006	No	NO	NO
Cadmium (Dissolved)	mg/l	0.00008	0.00025	0.0015	15	0.00008	0.00062	0.0003	15	8	Yes	No	0.0000	Yes	0.00015	Yes	3.5E-06	0.00001	No	0.0002	0.000060	Yes	0.00009	9.07778E-05	NO	0.00011	0.0002	No	NO	NO
Hexachlorobutadiene	mg/l	0.0001	No AA-EQS	0.0006	13	0.0001	0.0001	0.0001	13	0	No	No	N/A	N/A	0.00006	Yes	N/A	N/A	N/A	0.00003	0.000024	Yes	0.00059	0.0006	N/A	0.001000	0.00047	No	NO	NO
Fluoranthene	mg/l	0.00001	0.0000063	0.00012	15	0.00001	0.00001	0.0000	15	0	No	No	0.0000	Yes	1.2E-05	No	1.4E-07	0.00000	No	0.0000	0.000005	No								
Low-Level Dissolved Chromium (Hexavalent)	mg/l	0.0001	0.0034	N/A	5	0.0001	0.0034	0.00087	5	3	Yes	Yes	0.0003	Yes	N/A	N/A	1.2E-05	0.00014	No	N/A	N/A	N/A								
Ammonium	mg/l	0.05	0.6	N/A	15	0.075	2.9	0.782	15	15	Yes	Yes	0.0600	Yes	N/A	N/A	0.01062	0.02400	No	N/A	N/A	N/A								
Sulphate	mg/l	1	400	N/A	15	1	180	70.4	15	14	Yes	Yes	40.0000	Yes	N/A	N/A	0.95683	16.00000	No	N/A	N/A	N/A								
Chloride	mg/l	1	250	N/A	15	47	680	246	15	15	Yes	Yes	25.0000	Yes	N/A	N/A	3.34439	10.00000	No	N/A	N/A	N/A								
Iron (Dissolved)	mg/l	0.02	1	N/A	15	0.005	0.85	0.2114	15	9	Yes	Yes	0.1000	Yes	N/A	N/A	0.00287	0.04000	No	N/A	N/A	N/A								
Manganese (Dissolved)	mg/l	0.001	0.123	N/A	15	0.0005	1.1	0.183	15	14	Yes	Yes	0.0123	Yes	N/A	N/A	0.00249	0.00492	No	N/A	N/A	N/A								
Ammoniacal Nitrogen	mg/l	0.05	0.47	N/A	15	0.06	2.6	0.703	15	15	Yes	No	0.0467	Yes	N/A	N/A	0.00955	0.01867	No	N/A	N/A	N/A								
Dissolved Mercury Low Level	mg/l	0.00001	0.00007	N/A	15	0.00001	0.00091	0.000102	15	5	Yes	No	0.0000	Yes	N/A	N/A	1.4E-06	0.00000	No	N/A	N/A	N/A								
Naphthalene	mg/l	0.0005	0.002	N/A	12	0.0005	0.0005	0.0005	12	0	No	No	0.0002	Yes	N/A	N/A	6.8E-06	0.00008	No	N/A	N/A	N/A								
Hexachlorobutadiene	mg/l	0.0005	0.0006	N/A	12	0.0005	0.0005	0.0005	12	0	No	No	0.0001	Yes	N/A	N/A	6.8E-06	0.00002	No	N/A	N/A	N/A								
2,4-Dichlorophenol	mg/l	0.0005	0.0042	N/A	12	0.0005	0.0005	0.0005	12	0	No	No	0.0004	Yes	N/A	N/A	6.8E-06	0.00017	No	N/A	N/A	N/A								
Lead (Dissolved)	mg/l	0.001	0.012	0.014	15	0.0005	0.0015	0.0007	15	4	Yes	Yes	0.0012	No	0.0014	Yes	9.6E-06	0.00048	No	0.0004	0.000560	No								
Anthracene	mg/l	0.00001	0.00001	0.0001	15	0.00001	0.00001	0.0000	15	0	No	No	0.0000	No	0.00001	No														
Copper (Dissolved)	mg/l	0.001	0.029	N/A	15	0.0005	0.0064	0.0020	15	10	Yes	Yes	0.0029	No	N/A	N/A														
Zinc (Dissolved)	mg/l	0.001	0.049	N/A	15	0.001	0.013	0.0046	15	9	Yes	Yes	0.0049	No	N/A	N/A														
Boron (Dissolved)	mg/l	0.02	2	N/A	15	0.018	0.67	0.131	15	13	Yes	Yes	0.2000	No	N/A	N/A														
Arsenic (Dissolved)	mg/l	0.001	0.05	N/A	15	0.00048	0.0078	0.0026	15	15	Yes	Yes	0.0050	No	N/A	N/A														
m & p-Xylene	mg/l	0.0001	0.03	N/A	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
o-Xylene	mg/l	0.0001	0.03	N/A	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
Benzene	mg/l	0.0001	0.01	0.05	2	0.0001	0.0001	0.0001	2	0	No	Yes																		
Toluene	mg/l	0.0001	0.074	0.38	2	0.0001	0.0001	0.0001	2	0	No	Yes																		
Ethylbenzene	mg/l	0.0001	0.02	N/A	2	0.0001	0.0001	0.0001	2	0	No	Yes																		
1,4-Dichlorobenzene	mg/l	0.0001	0.02	0.2	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
1,2-Dichlorobenzene	mg/l	0.0001	0.02	0.2	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
Phenol	mg/l	0.0005	0.0077	0.046	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
2-Chlorophenol	mg/l	0.0005	0.05	N/A	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
1,4-Dichlorobenzene	mg/l	0.0005	0.02	0.2	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
1,2-Dichlorobenzene	mg/l	0.0005	0.02	0.2	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
4-Chloro-3-Methylphenol	mg/l	0.0005	0.04	N/A	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
Dimethylphthalate	mg/l	0.0005	0.8	4	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
Naphthalene	mg/l	0.00001	0.002	0.13	15	0.00001	0.00001	0.0000	15	0	No	Yes																		
Trichloromethane	mg/l	0.0001	0.0025	N/A	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
1,1,1-Trichloroethane	mg/l	0.0001	0.1	N/A	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
Tetrachloromethane	mg/l	0.0001	0.012	N/A	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
Benzene	mg/l	0.0001	0.01	0.05	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
1,2-Dichloroethane	mg/l	0.0002	0.01	N/A	13	0.0002	0.0002	0.0002	13	0	No	Yes																		
Trichloroethene	mg/l	0.0001	0.01	N/A	12	0.0001	0.0001	0.0001	12	0	No	Yes																		
Toluene	mg/l	0.0001	0.074	0.38	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
1,1,2-Trichloroethane	mg/l	0.0001	0.4	N/A	12	0.0001	0.0001	0.0001	12	0	No	Yes																		
Tetrachloroethene	mg/l	0.0001	0.01	N/A	12	0.0001	0.0001	0.0001	12	0	No	Yes																		
Ethylbenzene	mg/l	0.0001	0.02	N/A	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
Styrene	mg/l	0.0001	0.05	0.5	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
1,3-Dichlorobenzene	mg/l	0.0001	0.02	0.2	13	0.0001	0.0001	0.0001	13	0	No	Yes																		
1,3-Dichlorobenzene	mg/l	0.0005	0.02	0.2	12	0.0005	0.0005	0.0005	12	0	No	Yes																		
Chromium (Dissolved)	mg/l	0.001	No EQS	N/A	15	0.0005	0.024	0.0064	15	13	Yes	N/A	No EQS																	
Nitrate	mg/l	0.5	No EQS	N/A	15	0.5	150	34.8	15	11	Yes	N/A	No EQS																	
Phosphate	mg/l	0.2	No EQS	N/A	15	0.2	2.3	0.607	15	8	Yes	N/A	No EQS																	
Total Oxidised Nitrogen	mg/l	0.2	No EQS	N/A	15	0.2	34	7.98	15	10	Yes	N/A	No EQS																	
Calcium	mg/l	5	No EQS	N/A	15	51	170	106	15	15	Yes	N/A	No EQS																	
Potassium	mg/l	0.5	No EQS	N/A	15	1.6	21	8.43	15	15	Yes	N/A	No EQS																	
Magnesium	mg/l	0.5	No EQS	N/A	15	2.8	19	7.61	15	15	Yes	N/A	No EQS																	
Sodium	mg/l	0.5	No EQS	N/A	15	20	460	156	15	15	Yes	N/A	No EQS																	
Selenium (Dissolved)	mg/l	0.0005	No EQS	N/A	2	0.0005	0.00085	0.000675	2	1	Yes	N/A	No EQS																	
Dissolved Organic Carbon Low Level	mg/l	N/A	No EQS	N/A	7	1.1	81	38.4	7	7	Yes	N/A	No EQS																	
Aggressive Dissolved CO2	mg/l	0.6	No EQS	N/A	3	0.6	5.2	2.13	3	1	Yes	N/A	No EQS																	
Total Organic Carbon	mg/l	2	No EQS	N/A	1	36	36	36	1	1	Yes	N/A	No EQS																	
1,1-Dichloropropene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A	No EQS																	
Acenaphthene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A	No EQS																	
Fluorene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A	No EQS																	
Phenanthrene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A	No EQS																	
Pyrene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A	No EQS																	
Benzo[a]anthracene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A	No EQS																	
Chrysene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A	No EQS																	
Benzo fluoranthene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A	No EQS																	
Benzo[k]fluoranthene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A	No EQS																	
Indeno(1,2,3-c,d)Pyrene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A	No EQS																	
Dibenz(a,h)Anthracene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A	No EQS																	
Benzo[g,h,i]perylene	mg/l	0.00001	No EQS	N/A	15	0.00001	0.00001	0.0000	15	0	No	N/A	No EQS																	
Total Of 16 PAH's	mg/l	0.0002	No EQS	N/A	15	0.0002	0.0002	0.0002	15	0	No	N/A	No EQS																	
Dichlorodifluoromethane	mg/l	0.0001	No EQS	N/A	12	0.0001	0.0001	0.0001	12	0	No	N/A	No EQS																	

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Pre-SCREENING Is the substance present in the discharge?

SCREENING TEST 1 Does mean release concentration (RC) exceed 10% EQS?

SCREENING TEST 2 does the process contribution (PC) exceed 4 percent of the EQS?

SCREENING TEST 3 Does the difference between upstream quality and the Predicted Environmental Concentration (PEC) exceed 10% of the EQS

SCREENING TEST 4 Does the PEC exceed the EQS in the receiving water downstream of the discharge

Constituents	Unit	Limit of Detection	Freshwater EQS (Annual Average)	Freshwater EQS - Maximum allowable concentration (MAC)	Number of Samples	Minimum Value in discharge	Maximum Value in discharge	discharge mean (where value < LOD treated as LOD)	count of tests	Is the substance a Priority Hazardous Substance with a Significant Load limit?	Is the substance measured above LOD in the discharge?	Is the LOD sufficiently low (LOD <10% of EQS)?	10% EQS (AA)	Test failed? (AA)	10% EQS (MAC); where available	Test failed? (MAC)	Process Contribution PC (worst)	4% EQS (AA)	Test failed? (AA)	Process Contribution PC (max)	4th EQS (MAC), where available	Test failed? (MAC)	Predicted Environmental Concentration (PEC) (max) (mg/l)	BC: Mean Upstream Concentration (values below LOD treated as LOD) (mg/l)	Test 3 failed? (AA)	BC (MAC) Maximum Upstream Concentration (values below LOD treated as LOD)	Predicted Environmental Concentration (PEC) (max) (mg/l)	Test 3 failed? (MAC)	AA test failed? (PAA PEC above AA EQS)	MAC test failed? (MAC PEC above MAC EQS)
Chloromethane	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
Vinyl Chloride	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
Bromomethane	mg/l	0.002	No EQS	N/A	13	0.002	0.002	0.0020	13	0	No	N/A No EQS																		
Chloroethane	mg/l	0.0002	No EQS	N/A	13	0.0002	0.0002	0.0002	13	0	No	N/A No EQS																		
Trichlorofluoromethane	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
1,1-Dichloroethene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
Trans 1,2-Dichloroethene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
1,1-Dichloroethane	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
cis 1,2-Dichloroethene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
Bromochloromethane	mg/l	0.0005	No EQS	N/A	13	0.0005	0.0005	0.0005	13	0	No	N/A No EQS																		
1,2-Dichloropropane	mg/l	0.0001	No EQS	N/A	12	0.0001	0.0001	0.0001	12	0	No	N/A No EQS																		
Dibromomethane	mg/l	0.0001	No EQS	N/A	12	0.0001	0.0001	0.0001	12	0	No	N/A No EQS																		
Bromodichloromethane	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
cis-1,3-Dichloropropene	mg/l	0.001	No EQS	N/A	12	0.001	0.001	0.0010	12	0	No	N/A No EQS																		
Trans-1,3-Dichloropropene	mg/l	0.001	No EQS	N/A	12	0.001	0.001	0.0010	12	0	No	N/A No EQS																		
1,3-Dichloropropane	mg/l	0.0002	No EQS	N/A	12	0.0002	0.0002	0.0002	12	0	No	N/A No EQS																		
Dibromochloromethane	mg/l	0.001	No EQS	N/A	12	0.001	0.001	0.0010	12	0	No	N/A No EQS																		
1,2-Dibromoethane	mg/l	0.0005	No EQS	N/A	13	0.0005	0.0005	0.0005	13	0	No	N/A No EQS																		
Chlorobenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
1,1,1,2-Tetrachloroethane	mg/l	0.0002	No EQS	N/A	13	0.0002	0.0002	0.0002	13	0	No	N/A No EQS																		
Phenanthrene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Carbazole	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Di-N-Butyl Phthalate	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Total TPH >C6-C40	mg/l	0.01	No EQS	N/A	5	0.01	0.01	0.0100	5	0	No	N/A No EQS																		
Tribromomethane	mg/l	0.001	No EQS	N/A	13	0.001	0.001	0.0010	13	0	No	N/A No EQS																		
Isopropylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
Bromobenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
1,2,3-Trichloropropane	mg/l	0.005	No EQS	N/A	13	0.005	0.005	0.0050	13	0	No	N/A No EQS																		
N-Propylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
2-Chlorotoluene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
1,3,5-Trimethylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
4-Chlorotoluene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
Tert-Butylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
1,2,4-Trimethylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
Sec-Butylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
4-Isopropyltoluene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
N-Butylbenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
1,2-Dibromo-3-Chloropropane	mg/l	0.005	No EQS	N/A	13	0.005	0.005	0.0050	13	0	No	N/A No EQS																		
1,2,4-Trichlorobenzene	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
1,2,3-Trichlorobenzene	mg/l	0.0002	No EQS	N/A	13	0.0002	0.0002	0.0002	13	0	No	N/A No EQS																		
Methyl Tert-Butyl Ether	mg/l	0.0001	No EQS	N/A	13	0.0001	0.0001	0.0001	13	0	No	N/A No EQS																		
N-Nitrosodimethylamine	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Bis-(2-Chloroethyl)Ether	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
2-Methylphenol (o-Cresol)	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Bis(2-Chloroisopropyl)Ether	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Hexachloroethane	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
N-Nitrosodi-n-propylamine	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
4-Methylphenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Nitrobenzene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Isophorone	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
2-Nitrophenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
2,4-Dimethylphenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Bis(2-Chloroethoxy)Methane	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
1,2,4-Trichlorobenzene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
4-Chloroaniline	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
2-Methylnaphthalene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Hexachlorocyclopentadiene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		

Surface Water H1 Risk Assessment Phase 1, Part A Screening Tests

Cells highlighted amber are not an operational EQS given in the Surface Water Pollution Risk Assessment .gov.uk webpage.

RFR: Watercourse Q95 flow m^3/s	EFR: Effluent flow rate (maximum) m^3/s	EFR: Effluent flow rate (mean) m^3/s
0.0168	0.00616	0.000231

Pre-SCREENING — Is the substance present in the discharge?

SCREENING TEST 1 — Does mean release concentration (RC) exceed 10% EQS?

SCREENING TEST 2 — does the process contribution (PC) exceed 4 percent of the EQS?

SCREENING TEST 3 — Does the difference between upstream quality and the Predicted Environmental Concentration (PEC) exceed 10% of the EQS

SCREENING TEST 4 — Does the PEC exceed the EQS in the receiving water downstream of the discharge

Constituents	Unit	Limit of Detection	Freshwater EQS (Annual Average)	Freshwater EQS - Maximum allowable concentration (MAC)	Number of Samples	Minimum Value in discharge	Maximum Value in discharge	discharge mean (values below LOD treated as LOD)	count of tests	Is the substance a Priority Hazardous Substance with a Significant Load limit?	Is the substance measured above LOD in the discharge?	Is the LOD sufficiently low (LOD <10% of EQS)?	10% EQS (AA)	Test failed? (AA)	10% EQS (MAC), where available	Test failed? (MAC)	Process Contribution PC (mean)	4% EQS (AA)	Test failed? (AA)	Process Contribution PC (max)	4th EQS (MAC), where available	Test failed? (MAC)	Predicted Environmental Concentration (PEC) (mean) (mg/l)	BC: Mean Upstream Concentration (values below LOD treated as LOD) (mg/l)	Test 3 failed? (AA)	BC (MAC) Maximum Upstream Concentration (values below LOD treated as LOD)	Predicted Environmental Concentration (PEC) (max) (mg/l)	Test3 failed? (MAC)	AA test failed? PAA PEC above AA EQS	MAC test failed? (MAC PEC above MAC EQS
2,4,6-Trichlorophenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
2,4,5-Trichlorophenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
2-Chloronaphthalene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
2-Nitroaniline	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Acenaphthylene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
2,6-Dinitrotoluene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Acenaphthene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
3-Nitroaniline	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Dibenzofuran	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
4-Chlorophenylphenylether	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
2,4-Dinitrotoluene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Fluorene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Diethyl Phthalate	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
4-Nitroaniline	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
2-Methyl-4,6-Dinitrophenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Azobenzene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
4-Bromophenylphenyl Ether	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Phenanthrene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Carbazole	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Di-N-Butyl Phthalate	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Pyrene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Butylbenzyl Phthalate	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Benzo[a]anthracene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Chrysene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Bis(2-Ethylhexyl)Phthalate	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Di-N-Octyl Phthalate	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Benzo fluoranthene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Benzo[k]fluoranthene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Indeno(1,2,3-c,d)Pyrene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Dibenz(a,h)Anthracene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
Benzo[g,h,i]perylene	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
4-Nitrophenol	mg/l	0.0005	No EQS	N/A	12	0.0005	0.0005	0.0005	12	0	No	N/A No EQS																		
PCB 28	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 81	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 52	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 77	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 105	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 90+101	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 114	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 118	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 118	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 153	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 123	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 138	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 126	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 180	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 156	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 157	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 167	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 169	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
PCB 189	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
Total PCBs (12 Congeners)	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
Total PCBs (7 congeners)	mg/l	0.00001	No EQS	N/A	13	0.00001	0.00001	0.0000	13	0	No	N/A No EQS																		
Total Phenols	mg/l	0.03	No EQS	N/A	14	0.03	0.03	0.0300	14	0	No	N/A No EQS																		
Aliphatic TPH >C5-C6	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aliphatic TPH >C6-C8	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aliphatic TPH >C8-C10	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		

Surface Water H1 Risk Assessment Phase 1, Part A Screening Tests

Cells highlighted amber are not an operational EQS given in the Surface Water Pollution Risk Assessment .gov.uk webpage.

RFR: Watercourse Q95 flow m^3/s	EFR: Effluent flow rate (maximum) m^3/s	EFR: Effluent flow rate (mean) m^3/s
0.0168	0.00616	0.000231

Constituents	Unit	Limit of Detection	Freshwater EQS (Annual Average)	Freshwater EQS - Maximum allowable concentration (MAC)	Number of Samples	Minimum Value in discharge	Maximum Value in discharge	discharge mean (values below LOD treated as LOD)	count of tests	Is the substance a Priority Hazardous Substance with a Significant Load limit?	**Pre-SCREENING** Is the substance measured above LOD in the discharge?	Is the LOD sufficiently low (LOD <10% of EQS)?	**SCREENING TEST 1** 10% EQS (AA)	Test failed? (AA)	10% EQS (MAC), where available	Test failed? (MAC)	**SCREENING TEST 2** Process Contribution PC (mean)	4x EQS (AA)	Test failed? (AA)	Process Contribution PC (max)	4x LOD (MAC), where available	Test failed? (MAC)	**SCREENING TEST 3** Predicted Environmental Concentration (PEC) (mean) (mg/l)	B: Mean Upstream Concentration (values below LOD treated as LOD) (mg/l)	Test 3 failed? (AA)	B: (MAC) Maximum Upstream Concentration (values below LOD treated as LOD) (mg/l)	Predicted Environmental Concentration (PEC) (max) (mg/l)	Test 3 failed? (MAC)	**SCREENING TEST 4** AA test failed? (AA PEC above AA EQS)	MAC test failed? (MAC PEC above MAC EQS)
Aliphatic TPH >C10-C12	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aliphatic TPH >C12-C16	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aliphatic TPH >C16-C21	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aliphatic TPH >C21-C35	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aliphatic TPH >C35-C44	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Total Aliphatic Hydrocarbons	mg/l	0.005	No EQS	N/A	10	0.005	0.005	0.0050	10	0	No	N/A No EQS																		
Aromatic TPH >C5-C7	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C7-C8	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C8-C10	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C10-C12	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C12-C16	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C16-C21	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C21-C35	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Aromatic TPH >C35-C44	mg/l	0.0001	No EQS	N/A	10	0.0001	0.0001	0.0001	10	0	No	N/A No EQS																		
Total Aromatic Hydrocarbons	mg/l	0.005	No EQS	N/A	10	0.005	0.005	0.0050	10	0	No	N/A No EQS																		
Total Petroleum Hydrocarbons	mg/l	0.01	No EQS	N/A	10	0.01	0.01	0.0100	10	0	No	N/A No EQS																		

ATKINS

Surface Water H1 Risk Assessment Phase 1, Part B annual significant load screening tests for PHSs (priority hazardous substances)

RFR: Watercourse Q95 flow m^3/s	EFR: Effluent flow rate (mean) m^3/s
0.0168	0.00023

Constituents	Unit	Limit of Detection	Freshwater EQS (Annual Average)	Number of Samples	Minimum Value	Maximum Value	mean (values below LOD treated as LOD)	count of tests	count of detections	Is the substance a Priority Hazardous Substance with a Significant Load limit?	Load in the discahrge (kg/yr)	Significant load limit (kg/yr)
Cadmium (Dissolved)	mg/l	0.00008	0.00025	15	0.00008	0.00062	0.00025	15	6	YES	1.86E-03	1
Anthracene	mg/l	0.00001	0.0001	12	0.0005	0.0005	0.0005	12	0	YES	3.65E-03	1
Hexachlorobenzene	mg/l	0.0005	0.00005	12	0.0005	0.0005	0.0005	12	0	YES	3.65E-03	1
Hexachlorobutadiene	mg/l	0.0001		13	0.0001	0.0001	0.0001	13	0	YES	7.30E-04	1
Dissolved Mercury Low Level	mg/l	0.00001	0.00007	15	0.00001	0.00091	0.0001	15	5	YES	7.43E-04	1
Benzo[a]pyrene	mg/l	0.00001	0.00000017	12	0.0005	0.0005	0.0005	12	0	YES	3.65E-03	5
Sum of benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, indeno(1,2,3cd)pyrene.	mg/l	0.00004	0.00017	15	0.00004	0.00004	0.00004	15	0	YES	2.92E-04	5