

# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Anglian Water Services Limited

Tilbury Water Recycling Centre Fort Road Tilbury Essex RM18 8UL

#### Variation application number

B0531/V002

Permit number

B0531

## Tilbury Water Recycling Centre Permit number B0531

#### Introductory note

#### This introductory note does not form a part of the notice.

Under the Environmental Permitting (England & Wales) Regulations 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

Variation to correct the Dry Weather Flow (DWF) limit following review by the operator and in agreement with the Environment Agency. The DWF limit is being amended as reliable flow data has become available.

The permit has also been updated to the modern EPR 2010 format. The existing summated limits for BOD and Ammonia have been updated to separate limits by Environment Agency led variation.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit				
Description	Date	Comments		
Permit determined B0531	29/05/1990			
Variation determined B0531	22/03/1996			
Variation determined B0531	13/06/2000	Full permit re-write		
Permit modified B0531	14/10/2008	OSM (modification) Tier 3 Effective 1/4/2009		
Variation determined B0531	31/03/2010	Amendment to the DWF limit by schedule		
Variation determined B0531/V001	21/03/2011	Dangerous substance review		
Application B0531/V002 (variation and consolidation)	Duly made 05/10/2015	Application to amend the Dry Weather Flow (DWF).		
Additional information received	17/12/2015	Operating technique		
Variation determined B0531	05/02/2016	Varied and consolidated permit issued in modern condition format.		

End of introductory note

#### Notice of variation and consolidation

#### The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

#### Permit number

B0531

#### Issued to

Anglian Water Services Limited ("the operator")

whose registered office is

Lancaster House Lancaster Way Ermine Business Park Huntingdon Cambridgeshire United Kingdom PE29 6XU

company registration number **02366656** 

to operate a water discharge activity at

Tilbury Water Recycling Centre Fort Road Tilbury Essex RM18 8UL

to the extent set out in the schedules.

The notice shall take effect from 5 February 2016

Name	Date
Lynn Jones	5 February 2016

Authorised on behalf of the Environment Agency

#### Schedule 1

The following conditions were varied as a result of an Environment Agency initiated variation:

1.1.1, 1.1.2, 1.1.3, 3.3.8, 4.1.1, 4.1.2, 4.2.1, 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.6, 4.4.1, 4.4.2, schedule 5 and schedule 6.

3.1.1 and Table S3.1 with respect to ATU-BOD as O<sub>2</sub> and Ammoniacal nitrogen (expressed as N).

The following conditions were varied as a result of the application made by the operator:

All other conditions

#### Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

#### Permit

#### The Environmental Permitting (England and Wales) Regulations 2010

#### Permit number

#### B0531

This is the consolidated permit referred to in the variation and consolidation notice for application B0531/V002 authorising,

#### Anglian Water Services Limited ("the operator"),

whose registered office is

Lancaster House Lancaster Way Ermine Business Park Huntingdon Cambridgeshire United Kingdom PE29 6XU

company registration number 02366656

to operate a water discharge activity at

Tilbury Water Recycling Centre Fort Road Tilbury Essex RM18 8UL

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Lynn Jones	5 February 2016

Authorised on behalf of the Environment Agency

## Conditions

#### 1 Management

#### 1.1 General management

- 1.1.1 The operator shall manage and operate the activity:
  - (a) in accordance with a written management system that identifies and minimises risks of pollution so far as is reasonably practicable, including those risks arising from operations, maintenance, accidents, incidents, non-conformances and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of the permit.

#### 2 **Operations**

#### 2.1 Permitted activities

2.1.1 The only activity authorised by the permit is the activity specified in schedule 1 table S1.1.

#### 2.2 The site

2.2.1 The discharge activity shall take place at the discharge point marked on the site plan at schedule 7 to this permit, and as listed in table S3.2; and, the operating techniques that are the subject of conditions prefixed by 2.3 shall be applied at the locations shown, or otherwise described, in schedule 7.

#### 2.3 Operating techniques

- 2.3.1 The activity shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 The operator shall comply with the relevant requirements of the Urban Waste Water Treatment (England and Wales) Regulations 1994.

#### 3 Emissions and monitoring

#### 3.1 Emissions to water

- 3.1.1 The limits given in schedule 3 table S3.1 shall not be exceeded.
- 3.1.2 The limits in schedule 3 table S3.1 to which this condition applies may be exceeded where: in any series of samples of the discharge taken at regular but randomised intervals in any period of twelve consecutive months as listed in column 1 of schedule 3A, no more than the relevant number of samples, as listed in column 2 of schedule 3A, exceed the applicable limit for that relevant parameter. For relevant parameters subject to schedule 3C the assessment is based on a fixed calendar year from 1 January to 31 December inclusive.

- (a) For the emission limits in schedule 3 table S3.1 to which this condition applies, no sample of the discharge taken at a time when unusual weather conditions are adversely affecting the operation of the waste water treatment works, shall be taken into account in deciding whether or not the emission limit has been complied with.
- (b) On any occasion where unusual weather conditions adversely affect the operation of the waste water treatment works, the operator shall use its best endeavours to mitigate that adverse effect.
- (c) For any sample of the discharge taken to be considered for the purposes of (a) above, the operator shall notify the Environment Agency in writing within 14 days of becoming aware that an emission limit has been exceeded. That notification shall include a full description of the unusual weather conditions and their impact on the operation of the works.

#### 3.1.4

- (a) For the emission limits in schedule 3, table S3.1 to which this condition applies, no sample of the discharge taken at a time when abnormal operating conditions are adversely affecting the operation of the waste water treatment works, shall be taken into account in deciding whether or not the emission limit has been complied with.
- (b) On any occasion where abnormal operating conditions adversely affect the operation of the waste water treatment works, the Operator shall use its best endeavours to mitigate that adverse effect.
- (c) For any sample of the discharge taken to be considered for the purposes of (a) above, the Operator shall notify the Environment Agency in writing within 14 days of becoming aware that an emission limit has been exceeded. That notification shall include a full description of the abnormal operating conditions and their impact on the operation of the works.

#### 3.1.5

- (a) If the measured Dry Weather Flow exceeds the permitted Dry Weather Flow limit then the operator shall, as soon as is practicable, investigate the reasons for the exceedance. The operator shall report the reasons for the exceedance to the Environment Agency and the steps that it proposes to take to restore compliance. An exceedance of the Dry Weather Flow limit shall not be recorded as a failure if the operator takes appropriate steps to restore compliance;
- (b) If the measured Dry Weather Flow exceeds the permitted Dry Weather Flow limit because of unusual rainfall during the 12-month period, then it will not be recorded as a failure of the Dry Weather Flow limit. For the purposes of this condition, unusual rainfall shall mean rainfall that causes significantly higher sewage flows during the three-month period that normally records the lowest flows;
- (c) The permitted Dry Weather Flow limit is set at the operator's planned annual 80% exceeded flow;
- (d) For compliance with this permit, the measured Dry Weather Flow is that total daily volume that is exceeded by 90% of the recorded measured total daily volume values in any period of 12 months; and
- (e) For unusual rainfall to be considered, the operator shall notify the Environment Agency and provide supporting evidence as part of the normal specified data returns.

#### 3.1.3

#### 3.2 Emissions of substances not controlled by emission limits

3.2.1 The operator shall take appropriate measures to minimise so far as reasonably practicable the polluting effects of the emissions of substances in the discharge not controlled by emission limits (excluding odour).

#### 3.3 Monitoring

- 3.3.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
  - (a) point source emissions specified in tables S3.1 and S3.3;
  - (b) inlet quality specified in tables S3.1 and S3.3.
- 3.3.2 The operator shall maintain records of all monitoring required by this permit.
- 3.3.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme specified in condition 3.3.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.3.4 Accessible monitoring points shall be provided and maintained to enable the emissions monitoring programme to be carried out at the monitoring points specified in table S3.3 of schedule 3 and shown marked on the site plan in schedule 7.
- 3.3.5 The monitoring programme for the parameters subject to schedule 3B shall be:
  - (a) pre-scheduled to cover a calendar year and the programme recorded before the start of a calendar year sample period; and
  - (b) spot samples collected at approximately equal intervals during the year, including samples from different days of the week and different times. Approximately 10% of samples should be outside the normal sampling window which is 9am-3pm, Monday to Friday.
- 3.3.6 After becoming aware, or following a notification that a sample has not been taken on the schedule 3B Monitoring Programme pre-scheduled date, or is lost, or a result for that sample cannot be reported, the operator shall record the details and reschedule the sample.
- 3.3.7 The monitoring programme for the parameters subject to schedule 3C shall be:
  - (a) pre-scheduled before each calendar year;
  - (b) Unless otherwise agreed in writing by the Environment Agency, the operator shall submit the monitoring programme for the following calendar year to the Environment Agency before the 1<sup>st</sup> of December; and
  - (c) samples must be collected at approximately equal intervals during the year from different days of the week and approximately 10% of samples should be taken at weekends.
- 3.3.8 Unless otherwise agreed in writing by the Environment Agency, after becoming aware, or following notification that a sample has not been taken on the schedule 3C Monitoring Programme prescheduled date, or is lost, or a result for that sample cannot be reported, the operator shall notify the Environment Agency of the missed event and the reschedule date as soon as reasonably practicable.

#### 4 Information

#### 4.1 Records

- 4.1.1 All records required to be made by schedule 3, 4 and 5 to this permit shall:
  - (a) be legible;
  - (b) be made as soon as reasonably practicable;
  - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
  - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made.
- 4.1.2 The operator shall maintain convenient access, in either electronic or hard copy, to the records, plan and management system required to be maintained by this permit.

#### 4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 Within the time period after the end of the reporting period specified in schedule 4 table S4.1 the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
  - (a) in respect of the parameters and monitoring points specified in schedule 4 table S4.1;
  - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.2; and
  - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

#### 4.3 Notifications

- 4.3.1 The Environment Agency shall be notified as soon as reasonably practicable following detection, within the site of the regulated facility of:
  - (a) any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution; and
  - (b) any breach of a limit specified in schedule 3 table S3.1 (including individual exceedances of limits which are covered by condition 3.1.2).

Any other significant adverse environmental effects, which may have been caused by the activity, shall also be notified to the Environment Agency as soon as reasonably practicable following detection.

- 4.3.2 The information provided under condition 4.3.1 shall be supported by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling specified in schedule 3B/3C, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.
- 4.3.5 Where the operator proposes to make a change in the nature of the activity by increasing the concentration of, or the addition of, or allowing the introduction of, a substance to the activity to an extent that the operator considers could have a significant adverse environmental effect on the receiving waters, and the change is not permitted by emission limits specified within schedule 3 table S3.1 or the subject of an application for approval under the EP Regulations or under the terms of this permit:
  - (a) the Environment Agency shall be notified in writing at least 14 days before the increase or addition or allowing the introduction; and
  - (b) the notification shall contain a description of the proposed change.
- 4.3.6 For the activity A1 referenced in schedule 1, table S1.1 the operator shall inform the Environment Agency in writing of any change, or proposed change, to the population equivalent such as would make a material change to the application of the Regulations and shall, on request, inform the Environment Agency in writing of the actual population equivalent.

#### 4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "as soon as reasonably practicable", in which case it may be provided by telephone.

## Schedule 1 – Operations

Table S1.1 Activities	
Description of activity	Limits of specified activity
Discharge of secondary treated sewage effluent via Final Effluent Discharge Point	N/A

Table S1.2 Operating techniques				
Description of documentation	Parts	Date Received		
OT1 – Operating technique to ensure that representative samples of the final effluent are obtained	All	17/12/2015		

## Schedule 2 – Waste types, raw materials and fuels

Schedule 2 not in use.

## Schedule 3 – Emissions and monitoring

Table S3.1 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements

requirement	requirements						
Effluent(s) and discharge point(s)	Parameter	Limit (including unit)	Reference Period	Limit of effective range	Monitoring frequency	Compliance Statistic	
Secondary treated sewage effluent via Final	Dry weather flow	40,000 m <sup>3</sup> /day	Total daily volume	N/A	Continuous	Condition 3.1.5 applies	
Effluent Discharge Point	15-minute instantaneous or averaged flow	No limit set. Record as I/s (sum of the flows monitored at points flow measurement (1) and flow measurement (2) as specified in table S3.3)	15 minute	N/A	Continuous	N/A	
	ATU-BOD as $O_2$	95 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Look up table (Conditions 3.1.2 and 3.1.3 apply)	
	ATU-BOD as O <sub>2</sub>	190 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Maximum (Condition 3.1.3 applies)	
	Ammoniacal nitrogen (expressed as N)	65 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Look up table (Conditions 3.1.2 and 3.1.3 apply)	
	Ammoniacal nitrogen (expressed as N)	130 mg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Maximum (Condition 3.1.3 applies)	

	Table S3.1 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements					
Effluent(s) and discharge point(s)	Parameter	Limit (including unit)	Reference Period	Limit of effective range	Monitoring frequency	Compliance Statistic
	Total Chromium as Cr	39 µg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Look up table (Conditions 3.1.2 and 3.1.3 apply)
	Total Chromium as Cr	218 µg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Maximum (Condition 3.1.3 applies)
	Total copper as Cu	33 µg/l	Instantaneous (spot sample)	N/A	As specified in schedule 3B	Maximum (Condition 3.1.3 applies)
	Visible oil or grease	No significant trace present so far as is reasonably practicable	Instantaneous (visual examination )	N/A	N/A	No significant trace (Condition 3.1.3 applies)
	ATU-BOD as O <sub>2</sub> (UWWTR)	Minimum of 70 % removal compared to influent	24 hour composite	To be compliant a sample has to meet the 70% removal standard or the 25 mg/l limit not both	As specified in schedule 3C	Look up table (Conditions 3.1.2 and 3.1.4 apply)
	ATU-BOD as O <sub>2</sub> (UWWTR)	25 mg/l	24 hour composite	To be compliant a sample has to meet the 70% removal standard or the 25 mg/l limit not both	As specified in schedule 3C	Look up table (Conditions 3.1.2 and 3.1.4 apply)
	ATU-BOD as O <sub>2</sub> (UWWTR)	50 mg/l	24 hour composite	This limit does not apply if a sample has met the 70% removal standard	As specified in schedule 3C	Maximum (Condition 3.1.4 applies)

	Table S3.1 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements					
Effluent(s) and discharge point(s)	Parameter	Limit (including unit)	Reference Period	Limit of effective range	Monitoring frequency	Compliance Statistic
	COD as O <sub>2</sub> (UWWTR)	Minimum of 75 % removal compared to influent	24 hour composite	To be compliant a sample has to meet the 75% removal standard or the 125 mg/l limit not both	As specified in schedule 3C	Look up table (Conditions 3.1.2 and 3.1.4 apply)
	COD as O <sub>2</sub> (UWWTR)	125 mg/l	24 hour composite	To be compliant a sample has to meet the 75% removal standard or the 125 mg/l limit not both	As specified in schedule 3C	Look up table (Conditions 3.1.2 and 3.1.4 apply)
	COD as O <sub>2</sub> (UWWTR)	250 mg/l	24 hour composite	This limit does not apply if a sample has met the 75% removal standard	As specified in schedule 3C	Maximum (Condition 3.1.4 applies)

Table S3.2 Discharge points				
Effluent Name	Discharge Point	Discharge point NGR	Receiving water/Environment	
Secondary treated sewage effluent	Final Effluent Discharge Point	TQ 6564 7525	Thames Estuary (Tidal)	

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Table S3.3 Monitoring points					
Effluent(s) and discharge point(s)	Monitoring type	Monitoring point NGR	Monitoring point reference		
Secondary treated sewage effluent via Final Effluent Discharge Point	UWWTR influent sampling	TQ 65661 75530	UWWTD Crude Sewage Sample Point (Monitoring point to be appropriately labelled)		
	UWWTR effluent sampling	TQ 65662 75354	OSM and UWWTD Final Sample Point 1 (Monitoring point to be appropriately labelled)		
		TQ 65600 75381	OSM and UWWTD Final Sample Point 2 (Monitoring point to be appropriately labelled)		
	Effluent sampling	TQ 65662 75354	OSM and UWWTD Final Sample Point 1 (Monitoring point to be appropriately labelled)		
		TQ 65600 75381	OSM and UWWTD Final Sample Point 2 (Monitoring point to be appropriately labelled)		
	MCerts flow monitoring	TQ 6561 7538	Flow Measurement (1) (Monitoring point to be appropriately labelled)		
		TQ 6566 7535	Flow Measurement (2) (Monitoring point to be appropriately labelled)		

## Schedule 3A - Look up table

Look up table				
Number of samples taken in any period of 12 months	Maximum number of samples permitted to exceed limit for given parameter			
4–7	1			
8–16	2			
17–28	3			
29–40	4			
41–53	5			
54–67	6			
68–81	7			
82–95	8			
96–110	9			
111–125	10			
126–140	11			
141–155	12			
156–171	13			
172–187	14			
188–203	15			
204–219	16			
220–235	17			
236–251	18			
252–268	19			
269–284	20			
285–300	21			
301–317	22			
318–334	23			
335–350	24			
351–365	25			

## Schedule 3B - OSM tier 3 sampling frequency

Parameter	'Normal frequency' of samples per year	Reduced Sampling frequency after 12 consecutive months of numeric permit compliance, samples per year or pro rata over the remainder of a year	On numeric limit failure return to normal frequency as soon as reasonably practicable, samples per 12 months	Out of hours samples
Sanitary	24	12	24	For 24 samples 2 out of hours samples per annum
Non sanitary	12	12	12	For 12 samples 1 out of hours sample per annum

## Schedule 3C – Urban Waste Water Treatment Regulations sampling frequency

Population equivalent	Samples per year	Reduced sampling frequency after a year without an UWWTR exceedance or failure, samples per year	Following an UWWTR exceedance or failure return to the higher frequency in the year that follows, samples per year
2,000 to 9,999	12	4	12
10,000 to 49,999	12	N/A	N/A
50,000 or over	24	N/A	N/A

## Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Monitoring point reference	Reporting period	Period begins
Dry Weather Flow (daily flows total)	Flow Measurement (1) and Flow Measurement (2)	Annually Report to be submitted within 2 months of the end of the calendar year	1 January
15-minute flow	Flow Measurement (1) and Flow Measurement (2)	Reports to be provided to the Environment Agency upon request Report to be submitted within 28 days unless otherwise specified in writing by the Environment Agency	Upon request by the Environment Agency
UWWTR - ATU-BOD as $O_2$ , COD as $O_2$	OSM and UWWTD Final Sample Point 1 And OSM and UWWTD Final Sample Point 2	Monthly Report to be submitted within 28 days	1st of month
Operator Self Monitoring - ATU- BOD as $O_2$ , ammoniacal nitrogen (expressed as N), suspended solids (measured after drying at 105°C), Total chromium as Cr, Total copper as Cu.	OSM and UWWTD Final Sample Point 1 And OSM and UWWTD Final Sample Point 2	Quarterly Report to be submitted within 28 days	1st of month
Operator Self Monitoring summary report	OSM and UWWTD Final Sample Point 1 And OSM and UWWTD Final Sample Point 2	Annually Report to be submitted within 2 months of the end of the calendar year	1 January

Table S4.2 Reporting forms		
Parameter	Reporting format	
Dry Weather Flow (daily flows total)	WISKI electronic format specified by the Environment Agency	
15-minute flow	WISKI electronic format specified by the Environment Agency	
UWWTR – ATU-BOD as $O_2$ , COD as $O_2$	Electronic format specified by the Environment Agency	
OSM - ATU-BOD as O <sub>2</sub> , ammoniacal nitrogen (expressed as N), suspended solids (measured after drying at 105°C), Total chromium as Cr, Total copper as Cu.	Quarterly - Electronic format specified by the Environment Agency	
Operator Self Monitoring summary report.	Annually - Summary report of compliance with the monitoring programme specified in Table S3.1 and schedule 3B in a format specified by the Environment Agency	

## Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

### Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution		
To be notified within 7 days of detection unless otherwise agreed in writing by the Environment Agency		
Date and time of the event		
Reference or description of the location of the event		
Description of where any release into the environment took place		
Substances(s) potentially released/type or nature of sewage released		
Best estimate of the quantity or rate of release of substances and/or duration of discharge		
Best estimate of the environmental impact of the discharge		
Measures taken, or intended to be taken, to stop any emission		
Description of the failure or accident.		

<ul> <li>(b) Notification requirements for the breach of a limit specified in schedule 3 table S3.1 (including individual exceedances of limits which are covered by condition 3.1.2)</li> <li>The information specified below is to be notified to the Environment Agency as soon as reasonably practicable following detection.</li> </ul>		
Self monitoring regime (where relevant)	e.g. OSM/UWWTR	
Type of failure	e.g. LUT failure/LUT exceedance/upper tier/other	
Date of sample/event		
Parameter		
Result and units		
Limit and units		

## Part B – to be submitted as soon as reasonably practicable unless otherwise agreed in writing by the Environment Agency

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident/breach/exceedance	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	

Name*	
Post	
Signature	
Date	

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

"accident" means an accident that may result in pollution.

"annually" means once every year.

"application" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"appropriate measures" for the purposes of the emission of substances not controlled by emission limits condition (condition 3.2.1) do not require the operator to undertake treatment to a level beyond that specified in schedule 1 table S1.1, or to carry out routine monitoring for substances not controlled by emission limits.

"ATU-BOD as  $O_2$ " means the biochemical oxygen demand (measured after 5 days at 20°C with nitrification suppressed by the addition of allylthiourea).

"COD as O<sub>2</sub>" means the chemical oxygen demand (measured using the standard dichromate procedure).

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the permitted activities, which are not controlled by an emission limit.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"significant pollution" means a category 1 or category 2 incident indicated by the Common Incident Classification Scheme (CICS).

"unusual weather conditions" includes, but is not limited to:

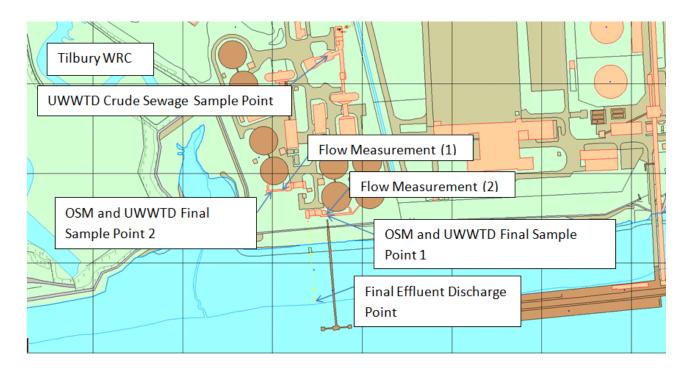
- low ambient temperatures, or the freezing of mechanical equipment in the works;
- significant snow deposits;
- tidal or fluvial flooding;
- weather conditions causing unforeseen loss of power supply to the sewage treatment that could not be ameliorated by the reasonable provision and operation of standby generation facilities.

"Urban Waste Water Treatment (England and Wales) Regulations 1994" means Urban Waste Water Treatment (England and Wales) Regulations 1994 SI 2841and the words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"abnormal operating conditions" include but are not limited to, the circumstances described in Regulation 40(1) of, or paragraph 6(5) of Schedule 21 to, the Environmental Permitting Regulations 2010 (illegal discharge to sewer), unusual weather, or during a defined period where the permit authorising the permitted activity has been varied for reasons such as capital works construction.

"year" means calendar year ending 31 December.

## Schedule 7 – Site plan



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END OF PERMIT

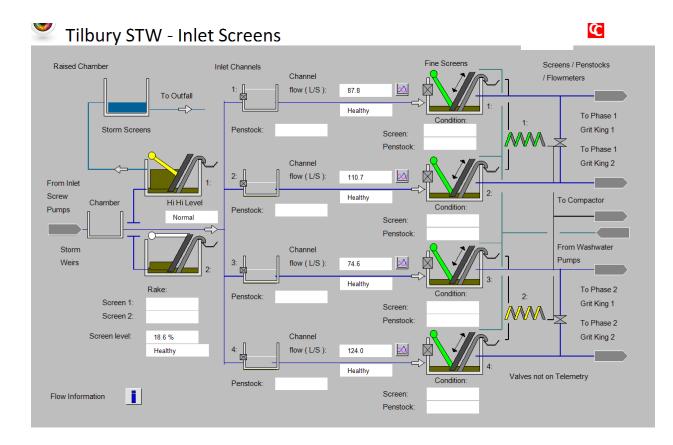
#### **Tilbury Water Recycling Centre**

## **Operating Technique to Ensure that Representative Samples of the Final Effluent are Obtained**

#### Background Information - How the flow is split

The inlet works is fed by two terminal pumping stations, North Works (approximately 30% of the flow) and South Works (approximately 70% of the flow). Once flow is received at the inlet it is split between 4 channels (1-4). Flows to each of the channels are controlled by penstocks which are linked to the operation of inlet screw pumps. Under normal operating conditions each of the 4 channels receive approximately 25% of the incoming flow. Flows from channels 1 and 2 subsequently pass to phase 1 of the treatment works whilst flows from channels 3 and 4 pass to phase 2. Each phase of the treatment works therefore receives approximately 50% of the flow.

A diagram of the inlet works is given below which shows the arrangement.



## Sampling arrangements under 'normal' operating conditions, ie. when incoming flow is split equally between phase 1 and phase 2

#### OSM Samples

Separate representative sample points are provided for the treated flows from phase 1 and phase 2 of the WRC. The sampler takes a sample from the phase 1 sample point and fills a measuring cylinder with 0.5 litres of effluent. This is then transferred to a 1 litre sample bottle. The sampler then repeats the exercise at the phase 2 sample point and adds the 0.5 litres of effluent to the sample bottle used to hold the sample from the phase 1 sample point. The sample is then transported to our laboratory and analysed.

#### UWWTD Samples

Separate autosamplers are set up at the treated flow sample points for phase 1 and phase 2 of the works. The sampler thoroughly mixes the 24 hour composite sample which has been collected by the phase 1 autosampler and completely fills a 1 litre sampling bottle. The sampler then repeats the exercise at the phase 2 sample point and completely fills a 1 litre sampling bottle. Both of the samples are then transported to our laboratory and analysed and the results assigned to separate sample point codes. An average value from the 2 samples are then used for compliance assessment purposes and reported to the Environment Agency.

## Sampling arrangements under when incoming flow is <u>not</u> split equally between phase 1 and phase 2

There may be occasions, for example when maintenance work is being undertaken, when incoming flow is <u>not</u> split equally between phase 1 and phase 2 of the treatment processes. Under these circumstances an Impact Plan, either Major or Minor depending upon the nature of the work, will be produced to specify the nature and duration of the work and the percentage flow split that will apply during this time. This plan will include an action for the Treatment Manager to advise the Logistics Manager (of the Sampling Teams) of the revised flow split.

#### **OSM Samples**

Temporary signage will be provided at the separate sample points to advise the sampler of the revised flow split to use for OSM samples and the period during which it applies.

#### UWWTD Samples

The Treatment manager will also advise the Senior Data Management Scientist (SDMS) in the Water Quality Performance Team of the duration of the work. They will then ensure that the appropriate adjustment is made to the calculation used to derive the UWWTD result which is used for compliance assessment purposes and reported to the Environment Agency.

#### Note:

The arrangements outlined above relating to the OSM samples reflect the current constraints of Anglian Water's compliance handling and reporting systems. It is anticipated that future improvements to the system will allow 1 litre samples to be taken at each separate sampling point and an appropriate calculated value derived (depending on the flow split) which would then used for compliance assessment purposes and reported to the Environment Agency. This Operating Technique would be updated to reflect the revised arrangements.