

Yvonne English
Environmental Licensing Programme
Office of Environmental Sustainability
Environmental Protection Agency
PO Box 3000
Johnstown Castle Estate
Wexford

Uisce Éireann
Bosca OP 6000
Baile Átha Cliath 1
Éire

Irish Water
PO Box 6000
Dublin 1
Ireland

T: +353 1 89 25000
F: +353 1 89 25001
www.water.ie

3rd November 2016

Dear Yvonne,

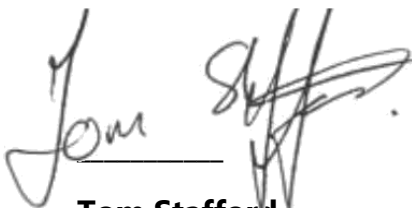
RE: Proposed Technical Amendments

Irish Water appreciates the opportunity to comment on the proposed alternations to the wastewater discharge licences.

The purpose of this submission is to advise the Agency of the concerns that Irish Water have in relation to the proposed changes and to propose solutions in respect of such issues. These are outlined below.

Irish Water would welcome the opportunity to discuss the attached at your earliest convenience.

Best Regards,



Tom Stafford
Environmental Regulation Manager

Column number in Table: 1

Amendment to be made: *To be inserted into the Glossary of the existing licence:*

Unusual Weather conditions

In relation to waste water discharges unusual weather, means any one or combination of the Conditions following:

- (i) heavy rainfall >50 mm in 24 hrs, >40 mm in 12 hrs, >30 mm in 6 hrs (i.e. Met Eireann Orange Alert criteria or greater);
- (ii) low ambient temperatures as evidenced by effluent temperature of 5°C or less or by the freezing of mechanical equipment in the works;
- (iii) significant snow deposits;
- (iv) tidal or fluvial flooding;

weather conditions causing unforeseen loss of power supply to the waste water treatment plant which could not be ameliorated by the reasonable provision

Issue:

Irish Water are concerned that the definition of unusual weather conditions namely the heavy rainfall criteria outlined are not representative of rainfall durations relevant to wastewater collection networks and treatment plants which are typically much shorter. Application of these criteria could lead to highly unusual rainfall events being considered as normal weather conditions. For instance 20mm of rainfall in 15 minutes would be considered normal under the proposed criteria.

We believe any proposed criteria should be based on a rainfall return period, which can be applied spatially on a site specific basis using the Met Eireann DDF grid rather than prescribed depths over longer durations.

In addition the proposed criterion does not take account of antecedent conditions, which may render some unusual events as being normal. These should also be considered in defining unusual weather.

Irish Water are concerned that any definition of unusual weather conditions in wastewater discharge authorisations may be misinterpreted as a definition of unusual weather conditions as per the Urban Wastewater Treatment Directive.

The above definition of unusual weather condition does not take into consideration the cumulative effect a number of rainfall events may have on the waste water works. Furthermore Irish Water would like to highlight that for larger collection networks there maybe a significant lag time between the occurrence of a rainfall event and any potential impact on the wastewater works.

Given the proposed criteria provided equate to a 1 in 5 year return period rainfall event and the fact that SWOs are designed to spill much more frequently, it is important that the purpose and context of any definition of unusual weather conditions in the authorisation is clearly stated as being limited solely to sampling and monitoring of the primary discharge only to avoid confusion.

With respect to point (i) Can you provide clarification as to what is meant by the term 'Significant' in point (iii) above.

Solution:

Irish Water would welcome clarification that the unusual weather condition definition as detailed above relates solely to sampling and monitoring requirements of the discharge licence and does not relate to an interpretation of unusual weather as per the Urban Waste Water Treatment Directive.

To take-in to consideration the point raised above, we propose that the following additional wording be included in part (i).

- (i) heavy rainfall >50 mm in 24 hrs, >40 mm in 12 hrs, >30 mm in 6 hrs (i.e. Met Eireann Orange Alert criteria or greater); *or any other combination of rainfall events that may have an impact on the waste water works.*

Column number in Table: 1

Amendment to be made: *Insert New Condition 2.2 & 2.3, to read as follows*

2.2 No sample of the discharge taken at a time when unusual weather conditions are adversely affecting the operation of the waste water treatment plant, shall be taken into account in determining compliance with Conditions 2.1 of this licence. A replacement sample shall be taken within 72 hours of cessation of the unusual weather conditions. The licensee shall report the sample result including any justification of the basis for excluding the sample in the Annual Environmental Report.

2.3 On any occasion where unusual weather conditions affect the operation of the waste water works the licensee shall use its best endeavors to mitigate the effect of the unusual weather conditions.

Issue:

Condition 2.2 requires a specified number of samples (as detailed in Schedule A4 of the relevant licenses) to be taken in order to demonstrate compliance. As the exact monitoring dates are not specified IW do not agree that the Agency should include a requirement for additional samples to be taken within 72 hours. Irish Water agree that a substitute sample will be taken in order to meet the requirements of condition 2.2.

Solution: Propose the following wording: For condition 2.2

No sample of the discharge taken at a time when unusual weather conditions are adversely affecting the operation of the waste water treatment plant, shall be taken into account in determining compliance with Conditions 2.1 of this licence. A replacement sample shall be taken to meet the requirements of condition 2.2. The licensee shall report the sample result including any justification of the basis for excluding the sample in the Annual Environmental Report.

Column number in Table: 2

Amendment to be made: Insert New Condition 4.XX, to read as follows

4.1 Priority Substances

- 4.1.1 The licensee shall undertake a risk based assessment of the discharge(s) in order to identify the relevant priority substances for monitoring. This assessment shall be undertaken in accordance with "Guidance on the Screening for Priority Substances for Waste Water Discharge Licences" issued by the Agency. Monitoring for the identified priority substances shall be carried out at least annually.

Issue:

On completion of the risk assessment, Irish Water will identify the scope and frequency of any additional dangerous substance monitoring required. Irish Water proposes that based on the outcome of the risk assessment, the scope and frequency of subsequent monitoring will be agreed with the Agency and the requirement to undertake monitoring of priority substances on an annual basis should be removed.

Solution:

Propose; 4.1.1 remove "monitoring for the identified priority substances shall be carried out at least annually" and replace with "Scope and Frequency of subsequent monitoring to be agreed with the Agency".

- 4.1.2 The licensee shall take such measures as are necessary to reduce or eliminate priority substances in the discharge(s). Implementation of the measures identified shall be reported on in the Programme of Improvements (required under Condition 5.1).

Issue:

Irish Water as a utility company is not empowered to prevent dangerous substances entering the collection network from domestic discharges. A more appropriate strategy for the removal of dangerous substances from wastewater is elimination at source. Therefore Irish Water will be unable to comply with this condition as currently worded and proposes the following wording.

Solution:

4.1.2- The licensee shall use its best endeavors to reduce or eliminate priority substances in the discharge(s). Implementation of the measures identified shall be reported on in the Programme of Improvements (required under Condition 5.1).

Column number in Table: 3

Amendment to be made: Amend Schedule B.X Receiving Water Monitoring to include the following requirement:

Parameter	Units	Monitoring Frequency	Analysis Method / Technique
Salinity	PSU	XX samples/year	Standard Method

Irish water has no issues with the proposed alteration.

Column number in Table: 4 and Table: 9

Amendment to be made:

2.1.1.4 For parameters other than pH, cBOD, COD and Suspended Solids no more than the relevant number of samples specified in *Schedule A.4: Interpretation of Discharge Monitoring Results* – Column 2 or Column 4, of this licence, shall exceed the **concentration** Emission Limit Value based on the number of samples taken as listed in *Schedule A.4: Interpretation of Discharge Monitoring Results* – Column 1 or Column 3, of this licence. No individual result similarly calculated shall exceed the emission limit value by more than 20%.

Delete Condition 2.1.1 (v) of the licence and replace with the following:

2.1.1(v) For parameters other than pH, cBOD, COD, Suspended Solids, XXXX

& XXXX no more than the relevant number of samples specified in *Schedule B.3: Interpretation of Discharge Monitoring Results* – Column 2, of this licence, shall exceed the **concentration** Emission Limit Value based on the number of samples taken as listed in *Schedule B.3: Interpretation of Discharge Monitoring Results* – Column 1, of this licence. No individual result similarly calculated shall exceed the emission limit value by more than 20%.

Issue:

Irish Water proposes that the annual mean would be a more appropriate measure of determining compliance with nutrient emission limit values. The annual mean requirement would be in accordance with that of the Urban Waste Water Treatment Directive for nutrients. In addition the Surface Water Regulations by the inclusion of 'mean' nutrient standard makes provision for the assessment of discharges based on mean concentration and flow.

Furthermore Irish Water does not agree that an instantaneous upper tier limit should be set for nutrient parameters and queries the scientific basis for imposing a upper tier limit of 20%, where an annual mean is used to determine compliance. If an instantaneous upper tier limit is to be required to enable enforcement of serious breaches of the licence, Irish Water proposes that a limit of 100% which is in line with the upper tier limit set for BOD & COD in the UWWT Directive be imposed.

Solution: Irish Water proposes that:

- i) For all proposed nutrient standards e.g. TON, Nitrate, orthophosphate etc. Irish Water proposes that the annual mean of the samples for each nutrient parameter will comply with the relevant parametric values.
- ii) Replacement of the requirement for no individual sample to exceed the emission limit value by more than 20% with 100% for sanitary parameters and remove the requirement for an upper tier limit when an annual mean is imposed.

Column number in Table: 4

Amendment to be made *Condition 2.X of the licence, to read as follows:*

2.X Discrete Sampling

No cBOD or COD grab sample value shall exceed the concentration emission limit value by more than 100% and no Suspended Solids grab sample value shall exceed the concentration emission limit value by more than 150%. For all other parameters, except pH, no grab sample value shall exceed the emission limit value by more than 20%.

Issue: Further to above, Irish Water queries the scientific basis for imposing a upper tier limit of 20% on discrete samples for parameters other than BOD, COD, SS and pH. Irish Water proposes that the same upper tier limit used for composite samples be applied to discrete samples.

Solution: Replacement of the requirement for no grab sample to exceed the emission limit values by more the 100% rather than 20%.

Column number in Table: 6

Amendment to be made: Primary Discharge locations are to be corrected.

Irish water has no issues with the proposed alteration.

Column number in Table: 7

Amendment to be made: Amend Condition 5.4 of the licence, to read as follows:

5.4 The licensee shall complete the improvements as set out in Schedule C: Specified Improvement Programme, of this licence, in order to ensure compliance with the emission limit values as set out in Schedule A: Discharges and Discharge Monitoring, of this licence.

Issue: The Authorisation Regulations relates specifically to the regulation and control of waste water discharges from the authorised wastewater works and plant. Therefore Irish Water welcomes that specified improvement programme detailed in the licences are solely to ensure compliance with the emission limit values set out in Schedule A. Further to the above Irish Water request that improvements set out in Schedule C of the licences that require updates to sewer, pumping station or other works which do not impact on the emission limit values being complied with be removed from the licences.

Irish Water would welcome the opportunity to review the proposed improvements to be specified in Schedule C before a final determination is made in order to ascertain what programme of works would need to be prioritised for funding in the future Capital investment programme as permitted under Regulation 28(3) of the 2007 Regulations.

Column number in Table: 8

Amendment to be made: Receiving water monitoring requirements to be added to license.

Irish water has no issue with the proposed alteration.

Column number in Table: 10

Amendment to be made: Insert New Condition 3.X, to read as follows

3. X No discharges from the waste water works is/are permitted save under and in accordance with this licence.

Issue: Irish Water note that the wastewater discharge licenses references specifically the primary, secondary discharges and storm water overflows but do not specify the emergency overflows. We therefore seek clarification from the Agency, that the above condition does not included reference to emergency overflows from the wastewater works.

For inspection purposes only.
Consent of copy right holder required for any other use.

Column number in Table: 11

Amendment to be made:

cBOD has been erroneously specified for ambient monitoring rather than Total BOD.

cBOD will be deleted from ambient monitoring schedules and replaced with a BOD monitoring requirement.

Irish water has no issue with the proposed alteration.

Proposed Amendments to wastewater discharge Licence conditions:

Further to the above Irish Water would like to take this opportunity to propose amendments to a number of other conditions.

1. *Condition 2.1.X For parameter Total Phosphorus the annual mean of the samples shall not exceed the emission limit value. No individual result similarly calculated shall exceed the emission limit value by more than 20%.*

The Urban Waste Water Treatment Directive specifies emission limit values complies with the annual mean standard and is based on composite samples. As detailed for Column no. 4 & 9 above, Irish Water do not agree with an upper tier limit being imposed where an annual mean is used to determine compliance. Irish Water queries the scientific basis for 20% and proposed that where the Agency insists on imposing an upper tier limit for a single sample that 100% would be more appropriate.

2. Environmental Liabilities

7.2.1 The licensee shall as part of the AER provide an annual statement as to the measures taken or adopted in relation to the prevention of environmental damage, and the financial provisions in place in relation to the underwriting of costs for remedial actions following anticipated events (including closure) or accidents/incidents, as may be associated with discharges or overflows from the waste water works.

7.2.2 The licensee shall arrange for the completion, by an independent and appropriately qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment (ELRA) to address the liabilities from present or planned discharges. A report on this assessment shall be submitted to the Agency for agreement as part of the second AER (required under Condition 6.8). The ELRA shall be reviewed as necessary to reflect any significant change to the volume or character of effluent discharged, and in any case every three years following initial agreement (the results of the review shall be notified as part of the AER).

7.2.3 As part of the measures identified in Condition 7.2.1 the licensee shall, to the satisfaction of the Agency, make financial provision to cover any liabilities identified in Condition 7.2.2. The amount of indemnity held shall be reviewed and revised as necessary, but at least triennially. Proof of renewal or revision of such financial indemnity shall be included in the annual 'Statement of Measures' report identified in Condition 7.2.1.

7.2.4 The licensee shall have regard to the Environmental Protection Agency Guidance on Environmental Liability Risk Assessment, Residuals Management Plans and Financial Provision when implementing Conditions 7.2.1, 7.2.2 and 7.2.3.

Condition 7.2.1, 7.2.3 & 7.2.4 remove reference to financial provision.

Neither the Authorisation regulations nor the environmental liabilities regulations require a financial provision to be put in place.

Condition 7.2.1, 7.2.2 7.2.3 & 7.2.4

It is noted that Condition 2 & 3 of the Wastewater Discharge Licences controls the discharges from the wastewater collection. The conditions require the licensee to prevent and remediate any deterioration in the receiving water. Irish Water proposes that while the licences should refer to the environmental liabilities regulations the wording of Condition 7.2.1 to 7.2.4 should be amended to reflect the purpose of the Authorisation Regulations.