

# Site Visit Report

The site visit process is a sample on a particular day of an installation's compliance with some of its licence conditions. Where non-compliance against a particular condition has not been reported, this should not be construed to mean that there is full compliance with that condition of the licence.

Instructions and actions arising from the visit shall be addressed, or where applicable noted, by the licensee in order to ensure compliance, to improve the environmental performance of the installation and to provide clarification on certain issues.

The licensee shall take the actions specified to close out the non-compliances and observations raised in this Site Visit Report.

Licensee	
<b>Name of Installation</b>	Kilmacrennan
<b>Licensee</b>	Irish Water
<b>Licence Register No.</b>	D0513-01
<b>CRO Number</b>	
<b>Site Address</b>	Donegal
<b>Site Visit Reference No.</b>	SV20060

Report Detail	
<b>Issue Date</b>	05/03/2020
<b>Prepared By</b>	Liam O'Suilleabhain

Site Visit Detail					
<b>Date Of Inspection</b>	11/02/2020	<b>Announced</b>	Yes		
<b>Time In</b>	09:00	<b>Time Out</b>	10:30		
<b>Agency Personnel On Site</b>	Liam O'Suilleabhain				
<b>Licensee Personnel and Role</b>	Roisin McDaid, Irish Water Adrian Gillispie, Donegal County Council on behalf of Irish Water Kieran Friel, Donegal County Council on behalf of Irish Water Eamon Doherty, Irish Water				
<b>Photo Taken</b>	Yes	<b>Samples Taken</b>	Yes	<b>Video Taken</b>	No
<b>Odour Assessment</b>	No				

## > Scope

To inspect Kilmacrennan waste water treatment plant (Registration number D0513-01).

## > Media

Water, Waste water.

## > Site Areas Inspected

Waste water treatment plant (WWTP) and Lurgy River (a tributary of the River Leannan).

## > Documents Inspected

Effluent monitoring results 2015 to 2019

Upstream and downstream ambient monitoring data, Lurgy River.



## 1. General

	Answer	Condition Number	Non Compliance	Observation
1.1	Have you recorded emission limit value breaches to date in the current year?	No		
<b>Comment / Corrective Action</b>				
<p>Discharges from the Kilmacrennan waste water works have been identified as the sole pressure putting the Leannan 030 water body at risk of not achieving its environmental objectives. The Leannan River is a designated freshwater pearl mussel site under the Freshwater Pearl Mussel Regulations (S.I. No. 355/2018 - European Union Environmental Objectives (Freshwater Pearl Mussel) (Amendment) Regulations 2018). The waste water treatment plant is significantly overloaded. The licence requires specified works to be completed by 31/12/2016 to provide for tertiary treatment and the cessation of non-compliant storm water overflow events. There were no recorded emission limit value breaches so far in 2020 as there was no sample analysed to date in 2020. The specified improvements have not been carried out and there were ongoing breaches for cBOD, COD, suspended solids, ammonia and ortho-phosphate in 2015 to 2019 inclusive.</p> <p>Corrective Action Required:</p> <p>Irish Water is reminded that the onus is on Irish Water to comply with the requirements of the licence and the conditions attached to the licence are legally binding. Irish Water shall ensure that the necessary improvement works to comply with the licence are carried out without undue delay. Irish Water (IW) is required to respond to the EPA on the required works through Compliance Investigation C1001032.</p>				

	Answer	Condition Number	Non Compliance	Observation
1.2	Is the composite sampler operational at all times the discharge is taking place?	No		
<b>Comment / Corrective Action</b>				
<p>Composite samples were not available for collection. The IW representatives advised that the effluent composite sampler was being operated only to carry out planned compliance sampling as required.</p> <p>Corrective Action Required:</p> <p>IW shall ensure the composite sampler is in place and operational at all times, and 24 hour composite samples are available for collection by authorised personnel at all reasonable times.</p> <p>The EPA may follow up on this matter at any time.</p>				



## 2. Inlet Works

	Answer	Condition Number	Non Compliance	Observation
2.1	Is the screening system at the plant inlet working adequately?	No		
<b>Comment / Corrective Action</b>				
<p>The screening system was not adequate in that a fine screen was not in place. The EPA has an open Compliance Investigation (ref: CI001032) in relation to the need for improvement works as discussed in Section 1.1.</p> <p>Corrective Action Required:</p> <p>Refer to Section 1.1</p>				

	Answer	Condition Number	Non Compliance	Observation
2.2	Is there visual evidence of surcharging at the inlet?	Yes		
<b>Comment / Corrective Action</b>				
<p>There was visual evidence of surcharging on the day of inspection. The plant is not designed for peak flows through the process. This matter has been raised repeatedly by the EPA. The EPA has an open Compliance Investigation (ref: CI001032) in relation to the need for improvements works as discussed in Section 1.1.</p> <p>Corrective Action Required:</p> <p>See Section 1.1</p>				



### 3. Phosphate Treatment

3.1

	Answer	Condition Number	Non Compliance	Observation
Is there dosing for phosphate removal at the plant?	No			
<b>Comment / Corrective Action</b>				
Tertiary treatment for phosphorous removal was not in place. The EPA has an open Compliance Investigation (ref: CI001032) in relation to the need for improvement works as discussed in Section 1.1.				
Corrective Action Required:				
Refer to Section 1.1				



## 4. Settling Tank/Final Clarifier

	Answer	Condition Number	Non Compliance	Observation
4.1	Is there any evidence of operational problems?	Yes		
<b>Comment / Corrective Action</b>				
<p>The was no clearly visibly supernatant. Poor separation of solids and liquid was evident. The EPA has an open Compliance Investigation (ref: CI001032) in relation to the need for improvement works as discussed in Section 1.1.</p> <p>Corrective Action Required:</p> <p>Refer to Section 1.1.</p>				



## 5. Site Specific Issues

	Answer	Condition Number	Non Compliance	Observation
5.1	Effluent and Receiving Water Testing	Not Applicable		
<b>Comment / Corrective Action</b>				
<p>Test results from a grab sample of the effluent taken on the day of the site visit showed breaches of emission limit values for ammonia and elevated suspended solids levels (see EPA Laboratory Test Report in Appendix). Grab samples of the receiving water taken upstream and down stream of the WWTP discharge point on the day of the site visit indicated increased ammonia level in the receiving water downstream of the discharge point (see report EPA Laboratory Test Report in Appendix). The EPA noted that the receiving water, River Lurgy, was in flood following persistent heavy rainfall in the previous days and surcharging at the inlet was evident.</p> <p>Corrective Action</p> <p>Refer to Section 1.1.</p>				

## EPA Laboratory Test Report

EPA Regional Inspectorate Castlebar  
John Moore Road  
Castlebar  
Co. Mayo

### Final

<b>Report To:</b> OEE Wastewater Thematic Team	<b>Project:</b> EPA-20-00335
	<b>Report Number :</b> 5114
	<b>Entity:</b> D0513-01
	<b>Location/Site:</b> Kilmacrennan WWTP

<b>Sample Number:</b> 20-02560	<b>Sampled Date:</b> 11/02/2020 10:05:00
<b>Sampling Point:</b> D0513-SW001	<b>Sampled By:</b> L O'Súilleabháin
<b>Description:</b> Kilmacrennan WWTP - SW001	<b>Replicate / Split:</b> None
	<b>Grab/Composite:</b> Grab
<b>Sample Condition:</b> Normal	<b>Received in Lab:</b> 12/02/2020

Parameter	Result	Units	Limits	Measurement Uncertainty	Analysis Date	Lab	Method
Ammonia	2.5	mg/l N	≤ 1	22%	12/02/2020	CB	EPA_W07 *
CBOD	5.6	mg/l O2	≤ 10	41%	12/02/2020	CB	EPA_W04 *
COD	40.0	mg/l O2	≤ 125	11%	12/02/2020	CB	EPA_W01 *
Conductivity @25°C	512	µS/cm		15%	12/02/2020	CB	EPA_W08 *
o-Phosphate	0.26	mg/l P	≤ 0.5	21%	12/02/2020	CB	EPA_W07 *
pH	7.7	pH units	≥ 6 and ≤ 9	0.2 pH units	12/02/2020	CB	EPA_W09 *
Suspended Solids	11	mg/l	≤ 10	19%	14/02/2020	CB	EPA_W03 *

**Comment:**

**Sample Number:** 20-02561  
**Sampling Point:** MISC  
**Description:** D/S River

**Sampled Date:** 11/02/2020 10:13:00  
**Sampled By:** L O'Súilleabháin  
**Replicate / Split:** None  
**Grab/Composite:** Grab  
**Received in Lab:** 12/02/2020

**Sample Condition:** Normal

Parameter	Result	Units	Limits	Measurement Uncertainty	Analysis Date	Lab	Method
Ammonia	0.040	mg/l N		22%	12/02/2020	CB	EPA_W07 *
BOD	<1	mg/l O2		40%	12/02/2020	CB	EPA_W04 *
Chloride	45.2	mg/l		16%	12/02/2020	CB	EPA_W07 *
COD	<20	mg/l O2		11%	12/02/2020	CB	EPA_W01 *
Conductivity @25'C	223	µS/cm		15%	12/02/2020	CB	EPA_W08 *
Nitrite	<4	µg/l N		18%	12/02/2020	CB	EPA_W07 *
o-Phosphate	0.013	mg/l P		21%	12/02/2020	CB	EPA_W07 *
pH	6.9	pH units		0.2 pH units	12/02/2020	CB	EPA_W09 *
Suspended Solids	6	mg/l		19%	14/02/2020	CB	EPA_W03 *
Total Oxidised Nitrogen	0.46	mg/l N		25%	12/02/2020	CB	EPA_W07 *

**Comment:** River in flood

**Sample Number:** 20-02562  
**Sampling Point:** MISC  
**Description:** U/S River

**Sampled Date:** 11/02/2020 10:23:00  
**Sampled By:** L O'Súilleabháin  
**Replicate / Split:** None  
**Grab/Composite:** Grab  
**Received in Lab:** 12/02/2020

**Sample Condition:** Normal

Parameter	Result	Units	Limits	Measurement Uncertainty	Analysis Date	Lab	Method
Ammonia	0.028	mg/l N		22%	12/02/2020	CB	EPA_W07 *
BOD	<1	mg/l O2		40%	12/02/2020	CB	EPA_W04 *
Chloride	45.0	mg/l		16%	12/02/2020	CB	EPA_W07 *
COD	<20	mg/l O2		11%	12/02/2020	CB	EPA_W01 *
Conductivity @25°C	223	µS/cm		15%	12/02/2020	CB	EPA_W08 *
Nitrite	<4	µg/l N		18%	12/02/2020	CB	EPA_W07 *
o-Phosphate	<0.01	mg/l P		21%	12/02/2020	CB	EPA_W07 *
pH	7.2	pH units		0.2 pH units	12/02/2020	CB	EPA_W09 *
Suspended Solids	6	mg/l		19%	14/02/2020	CB	EPA_W03 *
Total Oxidised Nitrogen	0.37	mg/l N		25%	12/02/2020	CB	EPA_W07 *

**Comment:** River in flood.

Report Approved By:



Alan Stephens - Regional Chemist

Results in bold are outside specified limits, not taking account of measurement uncertainty. \* Indicates accredited method. nm = not measured, nr = not reported, vob = visible on bottom.

Field Measurements are performed on the date of sampling. Results relate only to the item tested as received.

**This test report shall not be reproduced except in full without approval of the laboratory.**

Discharges from the Kilmacrennan waste water works have been identified as the sole pressure putting the Leannan 030 water body at risk of not achieving its environmental objectives. The Leannan River is a designated freshwater pearl mussel site under the Freshwater Pearl Mussel Regulations (S.I. No. 355/2018 - European Union Environmental Objectives (Freshwater Pearl Mussel) (Amendment) Regulations 2018).

The EPA notes Irish Water has not carried out specified improvement works as required by the licence i.e. to upgrade of the waste water treatment plant to provide tertiary treatment and the cessation of non-compliant storm water overflow events. Most recently and since the site visit, Irish Water has indicated that the specified improvements works are scheduled to be completed by November 2022.

A sample of the effluent on the day of the site visit showed elevated suspended solids and ammonia levels with the ammonia emission limit value specified in the licence breached. Sampling of the receiving water showed an increase in ammonia in the receiving water, Lurgy River, downstream from the waste water treatment plant even with the river in flood at the time of sampling.

Irish Water is reminded that the onus is on Irish Water to comply with the requirements of the licence and the conditions attached to the licence are legally binding. Irish Water shall ensure that the necessary improvement works to comply with the licence are carried out without undue delay.

The EPA is very concerned with the lack of progress by Irish Water in completing the improvement works specified in the licence. The EPA has an open compliance investigation (reference CI001032) in relation to the matter. Irish Water is required to respond to the EPA on the required works through Compliance Investigation CI001032. The EPA may consider further enforcement action in relation to the matter.

## **FOLLOW-UP ACTIONS**

You are required to complete the instructions and actions, as outlined in this report, within the specified timeframe. Where required, you shall respond to actions specified in Compliance Investigations within the required timeframe. The licensee shall maintain documentary evidence, for review by the EPA, that the prescribed corrective actions were completed within the required timeframe.

### **(i) Compliance Investigations**

You are not required to respond directly to items contained in this EPA site visit report; where an issue requires a direct response, the EPA will generate a Compliance Investigation through the EDEN system. You will receive notification when a Compliance Investigation instruction or action is generated.

### **(ii) Publication of reports and licensee response.**

Please note that this Site Visit Report will be made available for public viewing via the EPA's Licence Enforcement Access Portal within one day of the issue date and will be published on the Licence Details Page of the EPA's website, [www.epa.ie](http://www.epa.ie), that relates to your licence 60 calendar days after the issue date.

You may if you choose submit, within 45 calendar days of the issue date of this Site Visit Report, a Licensee Public Response that will be published alongside the Site Visit Report. This Response, should you wish to avail of it, provides you with an opportunity to inform the public about how you are implementing the actions set out in the report, activities underway, timescales and target completion dates. Please be aware that the content of your Licensee Public Response must be factual and should not breach the EPAs stated online publication standards.

If you wish to submit a Licensee Public Response to an EPA Site Visit Report, you should do this by clicking on the 'Make a Response' link on the Site Visits page in EDEN. A .pdf document containing your response can be attached and submitted from here.

### **(iii) Response to Site visit report**

Where you do wish to respond directly to a site visit report, you should do this by generating a 'Licensee Return' of the type 'Site Updates/Notifications' and the sub-type 'Response to EPA Report' in EDEN.

Please note that you are required to comply with the conditions of your licence at all times, and where noncompliance occurs you must restore compliance within the shortest possible time. These actions will be verified during subsequent EPA visits.

Please quote the above Inspection Reference Number in any future correspondence in relation to this Report.