

# 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>	Delvin
<b>Licensee</b>	Irish Water
<b>Licence Register No.</b>	D0267-01
<b>CRO Number</b>	
<b>Site Address</b>	Westmeath
<b>Site Visit Reference No.</b>	SV14235

Report Detail	
<b>Issue Date</b>	25/09/2018
<b>Prepared By</b>	Brian Coffey

Site Visit Detail					
<b>Date Of Inspection</b>	13/09/2018	<b>Announced</b>	Yes		
<b>Time In</b>	11:46	<b>Time Out</b>	12:42		
<b>Agency Personnel On Site</b>	Brian Coffey Eimear O'Keeffe				
<b>Licensee Personnel and Role</b>	Paul Cahill - Irish Water (IW) Padraig Joyce - IW Micheal McGreal - IW Mkhululi Ndebele -Westmeath County Council (WCC) Martin Murphy- WCC				
<b>Photo Taken</b>	No	<b>Samples Taken</b>	No	<b>Video Taken</b>	No
<b>Odour Assessment</b>	No				

## > Scope

Site inspection of Delvin wastewater treatment plant (WWTP) and receiving waters to check compliance with conditions of the discharge licence D0267-01.

## > Media

Water

## > Site Areas Inspected

Delvin WWTP and receiving waters.

## > Documents Inspected

- Monitoring results for 2018
- Mixed liquor suspended solids (MLSS) records



## 1. General

	Answer	Condition Number	Non Compliance	Observation
1.1	Have you recorded emission limit value breaches to date in the current year?	Yes		
<b>Comment / Corrective Action</b>				
One breach of the ortho-phosphate emissions value was recorded in July 2018.				
	Answer	Condition Number	Non Compliance	Observation
1.2	Has an Irish Water process optimisation visit been completed at this plant?	No		
<b>Comment / Corrective Action</b>				
There is a process optimisation visit planned to be completed before end 2018.				
	Answer	Condition Number	Non Compliance	Observation
1.3	Is the plant overloaded?	No		
<b>Comment / Corrective Action</b>				
The plant is within it's organic capacity but may be approaching it's hydraulic capacity as it is hydraulically overloaded during heavy rainfall events.				
	Answer	Condition Number	Non Compliance	Observation
1.4	Is the plant oversized for the amount of influent coming into the plant?	No		
	Answer	Condition Number	Non Compliance	Observation
1.5	Are critical spare parts and equipment readily available?	Yes		
	Answer	Condition Number	Non Compliance	Observation
1.6	In the event of a power-cut, is there a contingency plan in place at the plant?	Yes		
	Answer	Condition Number	Non Compliance	Observation
1.7	Is the composite sampler operational at all times the discharge is taking place?	No	Yes	
<b>Comment / Corrective Action</b>				
The composite sampler was set to operate prior to the next scheduled sample instead of continuously. Irish Water shall ensure that the composite sampler is operating and sampling at all times the discharge is taking place.				

	Answer	Condition Number	Non Compliance	Observation
1.8	Is there a composite sample available?	No	Yes	
<b>Comment / Corrective Action</b>				
The composite sampler was not operating at the time of the site visit.				

	Answer	Condition Number	Non Compliance	Observation
1.9	Is there visual evidence of pollution at, or downstream of, the discharge point to the receiving water?	No		
<b>Comment / Corrective Action</b>				
A visual inspection of the discharge point into the receiving water was completed during the site inspection, whereby no visual evidence of pollution was noted. Although no visual evidence of pollution was seen at the time of the visit, it should be noted that potential impacts may only be evident from completing appropriate ambient monitoring.				



## 2. Inlet Works

		<b>Answer</b>	<b>Condition Number</b>	<b>Non Compliance</b>	<b>Observation</b>
<b>2.1</b>	Is there screening in place at the inlet works?	Yes			
		<b>Answer</b>	<b>Condition Number</b>	<b>Non Compliance</b>	<b>Observation</b>
<b>2.2</b>	Is the screening system at the plant inlet working adequately?	Yes			
		<b>Answer</b>	<b>Condition Number</b>	<b>Non Compliance</b>	<b>Observation</b>
<b>2.3</b>	Is the screening system at the plant inlet being inspected and maintained?	Yes			
		<b>Answer</b>	<b>Condition Number</b>	<b>Non Compliance</b>	<b>Observation</b>
<b>2.4</b>	Is there grit removal at the inlet works?	No			
		<b>Answer</b>	<b>Condition Number</b>	<b>Non Compliance</b>	<b>Observation</b>
<b>2.5</b>	Is there visual evidence of surcharging at the inlet?	No			



### 3. Aeration Basin

	Answer	Condition Number	Non Compliance	Observation
3.1	Is there good evidence of mixing in the aeration basin?	Yes		
<b>Comment / Corrective Action</b>				
Aeration is provided by two aeration brushes and one Venturi aerator on site.				
	Answer	Condition Number	Non Compliance	Observation
3.2	Is the appearance of the mixed liquor satisfactory?	Yes		
	Answer	Condition Number	Non Compliance	Observation
3.3	Is the dissolved oxygen probe cleaned and maintained?	Yes		
<b>Comment / Corrective Action</b>				
The dissolved oxygen probe is calibrated once per year.				
	Answer	Condition Number	Non Compliance	Observation
3.4	Does the operator monitor the mixed liquor suspended solids/cone level at the plant?	Yes		
	Answer	Condition Number	Non Compliance	Observation
3.5	From review of records for mixed liquor suspended solids/cone at the plant, do the records show variations outside the target range and was corrective action taken as required?	Yes		
	Answer	Condition Number	Non Compliance	Observation
3.6	Is the return sludge pump operating?	Yes		
	Answer	Condition Number	Non Compliance	Observation
3.7	Does the operator know the sludge return rate from the clarifier to the aeration basin?	Yes		
<b>Comment / Corrective Action</b>				
The sludge return rate is typically 13-15 hours in 24.				
	Answer	Condition Number	Non Compliance	Observation
3.8	Is the operator aware of the target optimum sludge age?	Yes		

3.9

	<b>Answer</b>	<b>Condition Number</b>	<b>Non Compliance</b>	<b>Observation</b>
Is there any evidence of operational problems?	No			



## 4. Cone Test and Diluted Cone Test Observations

	Answer	Condition Number	Non Compliance	Observation
4.1	In the full cone test, are the solids compact?	No		
<b>Comment / Corrective Action</b>				
Some slight bulking was observed in the full cone on the day of the site inspection. However the sludge volume index (SVI) was within the optimum range.				
	Answer	Condition Number	Non Compliance	Observation
4.2	In the full cone test, is there good separation between the solid and liquid portion?	Yes		
	Answer	Condition Number	Non Compliance	Observation
4.3	Does the full cone test reflect mixed liquor suspended solids levels in the plant?	Yes		
<b>Comment / Corrective Action</b>				
Settled sludge in cone test was ~650ml on day of site visit.				
	Answer	Condition Number	Non Compliance	Observation
4.4	Is the sludge volume index within the optimum range?	Yes		
<b>Comment / Corrective Action</b>				
The sludge volume index was 104 on the day of the site visit, according to records held on site.				



## 5. Phosphate Treatment

	Answer	Condition Number	Non Compliance	Observation
5.1	Is there dosing for phosphate removal at the plant?	Yes		
	Answer	Condition Number	Non Compliance	Observation
5.2	Is the dosing for phosphate removal at the plant regulated by flow?	No		
	Answer	Condition Number	Non Compliance	Observation
5.3	Is there duty/standby pump(s) in operation?	Yes		
	Answer	Condition Number	Non Compliance	Observation
5.4	Is pump maintenance completed on a regular basis?	No		
<b>Comment / Corrective Action</b>				
Regular maintenance checks by external parties are no longer carried out and pumps will be replaced when they fail.				
	Answer	Condition Number	Non Compliance	Observation
5.5	Is there automatic switchover between duty and standby pumps?	Yes		



## 6. Settling Tank/Final Clarifier

	<b>Answer</b>	<b>Condition Number</b>	<b>Non Compliance</b>	<b>Observation</b>
<b>6.1</b>	Are the overflow weirs in good condition?	Yes		
	<b>Answer</b>	<b>Condition Number</b>	<b>Non Compliance</b>	<b>Observation</b>
<b>6.2</b>	Are the tiles/overflow channel clean?	Yes		
	<b>Answer</b>	<b>Condition Number</b>	<b>Non Compliance</b>	<b>Observation</b>
<b>6.3</b>	Is the bridge wheel in good condition?	Yes		
	<b>Answer</b>	<b>Condition Number</b>	<b>Non Compliance</b>	<b>Observation</b>
<b>6.4</b>	Is there any evidence of operational problems?	No		

A breach of the emission limit value (ELV) for ortho-phosphate occurred in July 2018 but the plant has since returned to compliance. A breakdown of aeration equipment (INCI015104) occurred in September 2018. This equipment had been repaired by the date of the site visit. The EPA acknowledges the work that has been completed on site to date to maintain compliance with licence ELVs. Irish Water shall update the incident record (INCI015104) to reflect the fact that the aeration equipment has been repaired.

Irish Water shall maintain a programme for maintenance of all plant and equipment at Delvin wastewater treatment plant as per condition 4.10 of the licence and not allow equipment to run to failure. Irish Water shall ensure that the composite sampler is programmed to continuously sample the effluent from the Delvin wastewater treatment plant.

Irish Water shall take all necessary measures to ensure that discharges from the Delvin wastewater treatment plant do not prevent the receiving waters from meeting their environmental objectives.

## **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.