

Site Visit Report

Under the *European Union (Drinking Water) Regulations 2023*, the Environmental Protection Agency (EPA) is the supervisory authority in relation to Uisce Éireann and its role in the provision of public drinking water supplies. This audit was carried out to assess the performance of Uisce Éireann in providing clean and wholesome water to the public water supply named below.

The audit process is a sample of the performance of a water treatment plant and public water supply on a given date.

Water Supply Zone	
Name of Installation	Clash/Leamleara
Organisation	Uisce Éireann
Scheme Code	0500PUB2402
County	Cork
Site Visit Reference No.	SV35230

Report Detail	
Issue Date	17/06/2026
Prepared By	Noel Cosgrove

Site Visit Detail			
Date Of Inspection	12/05/2026	Announced	No
Time In	10:30	Time Out	10:55
EPA Inspector(s)	Noel Cosgrove Anna Doyle		
Additional Visitors			
Company Personnel	Uisce Éireann: Claire Kelly, Sharon O'Dwyer, Seán O'Dwyer, Dominic McEvoy, Garry Harrington.		

> Summary of Key Findings

1. Disinfection consists of primary UV disinfection and secondary chlorination.
2. There are a number of deficiencies in relation to the UV disinfection system including i) lack of duty and standby UV units, and ii) lack of a suitable shutdown on the duty UV unit.

Uisce Éireann should submit a report to the EPA on or before 17/07/2026 detailing the actions taken and planned, with timescales, to close out the recommendations in this audit report.

> Introduction

Clash/Leamlara Water Treatment Plant (WTP) produces approximately 13 m³/day of water serving a population of 31. The audit focused on the disinfection system at Clash/Leamlara WTP.

> Supply Zones Areas Inspected

The audit assessed both the UV and chlorination disinfection systems at Clash/Leamlara Public Water Supply (PWS).



		Answer
1.1	Is chlorination used for primary disinfection?	No
	Comment	
	1. UV treatment is used for primary disinfection.	

		Answer
1.2	Did Uisce Éireann confirm the type of chlorine disinfectant in use?	Yes
	Comment	
	1. 10-12% Sodium Hypochlorite Solution.	

		Answer
1.3	Are there duty and standby chlorine dosing pumps in place?	Yes

		Answer
1.4	Is there automatic switchover in the event of failure of one of the chlorine dosing pumps?	Yes

		Answer
1.5	Is the chlorine dosing rate flow proportional?	Yes

		Answer
1.6	Is there a continuous residual chlorine monitor, with alarm, to verify chlorine dosing is taking place at the target level?	Yes

		Answer
1.7	Is there a continuous residual chlorine monitor, with alarm, at a suitable sample location after contact time has been completed?	No
	Comment	

1. UV treatment is used for primary disinfection.

	Answer
1.8	Can data trends from the online residual monitor be viewed on site? Yes

	Answer
1.9	Are there low and high chlorine alarm settings on each chlorine monitor? Yes
	Comment
	1. Low shutdown alarm set at 0.3mg/L. 2. High shutdown alarm set at 2.0mg/L. 3. Alarm delay time set at 5 minutes.

	Answer
1.10	Is there a documented alarm response procedure for responding to chlorine alarms? Yes

	Answer
1.11	Have staff been trained on the chlorine alarm response procedure? Yes

	Answer
1.12	Are chlorine alarms dialled out via a cascade system to allow a timely response by plant operators? Yes

	Answer
1.13	Is there automatic shutdown of the supply in the event of the chlorine level dropping below the low level or rising above the high chlorine alarm setting? Yes

	Answer
1.14	Are service due / monitoring instrument calibration dates for the chlorine monitors within date? Yes

	Answer
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1.15	Is the site specific target contact time being achieved?	Not Applicable
	Comment	
	1. UV treatment is used for primary disinfection.	
1.16		Answer
	Is the minimum effective contact time of 15 mg. min/l being achieved?	Not Applicable
	Comment	
	1. UV treatment is used for primary disinfection.	
1.17		Answer
	Is the residual chlorine level ≥ 0.1 mg/l at the extremity of the distribution network?	Yes
	Comment	
1.18		Answer
	Is monitoring of network residual chlorine undertaken several times per week?	Yes
	Comment	
	1. Residual chlorine monitoring carried out three times per week.	
1.19		Answer
	Is UV treatment used for primary disinfection?	Yes
	Comment	
1.20		Answer
	Are there duty and standby UV units in operation?	No
	Comment	

1. Uisce Éireann confirmed there is a duty UV unit in place only with no standby UV unit available.
2. It was found there was no automatic shut-off installed in the event of failure of the duty UV treatment unit.

Recommendation:

1. Ensure that there are duty and standby UV disinfection units with automatic changeover or plant shutdown in the event of failure of one of the UV disinfection units.

	Answer
1.21 Is there automatic shut-off of the supply in the event of UV units failing or operating outside of their validated range?	No
Comment 1. There is no automatic shut-off of the supply in the event the UV unit operates outside of the validated range. <u>Recommendation</u> 2. Ensure there is automatic plant shutdown in the event the UV unit drops outside of the validated range.	
	Answer
1.22 Is there continuous monitoring of the UV units to verify operation within validation range at all times?	Yes
	Answer
1.23 Can data trends from the online UV monitor(s) be viewed on-site?	Yes
	Answer
1.24 Is there a documented alarm response procedure for responding to UV alarms?	Yes
	Answer
1.25 Have staff been trained on the UV alarm response procedure?	Yes
	Answer
1.26 Are UV alarms dialled out via a cascade system to allow a timely response by plant operators?	Yes

		Answer
1.27	Are service due / monitoring instrument calibration dates for the UV units within date?	Yes

		Answer
1.28	Is the UV disinfection system validated to an appropriate international standard ?	Yes

		Answer
1.29	Did UÉ confirm that the UV disinfection system is operating within the validated range?	Yes

Recommendations

Actions required by Uisce Éireann

During the audit, Uisce Éireann representatives were advised of the audit findings and that action must be taken by Uisce Éireann to address the issues raised.

Uisce Éireann is responsible for ensuring a clean and wholesome supply of drinking water and should implement the recommendations raised in this report without delay.

Response to Audit Report

Uisce Éireann should submit a report to the EPA on or before the date specified in the Summary of Key Findings detailing the actions taken and planned, with timescales, to close out the recommendations in this audit report.

The EPA advises that the findings and recommendations from this report should, where relevant, be addressed at other public water supplies.

Publication of Reports

Audit reports are published to the EPA's website, www.epa.ie, typically 1 month after the audit report is issued to Uisce Éireann.