

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	Emlaghpeasta PWS 035H
Organisation	Uisce Éireann
Scheme Code	1300PUB1053
County	Kerry
Site Visit Reference No.	SV35048

Report Detail	
Issue Date	10/04/2026
Prepared By	Anna Doyle

Site Visit Detail			
Date Of Inspection	18/03/2026	Announced	No
Time In	14:30	Time Out	15:00
EPA Inspector(s)	Pauline Gillard Anna Doyle		
Additional Visitors			
Company Personnel	Uisce Éireann: Michael Downey, Flan Real and Shabila Perveen Kerry County Council (working in partnership with Uisce Éireann): Adrian Sullivan		

> Summary of Key Findings

1. Disinfection consists of primary UV disinfection and secondary chlorination.
2. Ensure monitoring of residual chlorine is undertaken several times a week at different points of the network to include the network extremities.
3. There are a number of deficiencies in relation to the UV disinfection system including i) lack of automatic changeover between duty and standby UV units, ii) lack of suitable alarms and shutdowns iii) lack of suitable continuous monitoring and d) lack of access to UV trends. Uisce Éireann said that it is intended to upgrade the UV system in the coming months.

Uisce Éireann should submit a report to the EPA on or before 09/05/2026 detailing the actions taken and planned, with timescales, to close out the recommendations in this audit report.

> Introduction

The Emlaghpeasta Water Treatment Plant (WTP) produces approximately 75 m³/d of water serving a population 164 (EDEN figures). The audit focused on the disinfection system at Emlaghpeasta WTP.

> Supply Zones Areas Inspected

This audit assessed the UV and chlorination disinfection system at Emlaghpeasta WTP.



		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. 12% Sodium Hypochlorite.	
		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?	Yes
		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
		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
1.15	Is the residual chlorine level ≥ 0.1 mg/l at the extremity of the distribution network?	Yes
		Answer
1.16	Is monitoring of network residual chlorine undertaken several times per week?	No
	Comment 1. Monitoring of the network residual chlorine is currently not being undertaken. Staff are awaiting training in the coming weeks on network residual chlorine monitoring.	
	Recommendation 1. Ensure monitoring of residual chlorine is undertaken several times a week at different points of the network to include the network extremities.	

	Answer
1.17 Is UV treatment used for primary disinfection?	Yes

	Answer
1.18 Are there duty and standby UV units in operation?	Yes

	Answer
1.19 Is there automatic changeover between the duty and standby UV units?	No
Comment	
1. There is manual changeover after 1000 hours.	
Recommendation	
2. Ensure there is automatic changeover between the duty and standby UV units in the event of failure of one of the UV disinfection units.	

	Answer
1.20 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 of UV units failing or operating outside of their validated range.	
Recommendation	
3. Ensure there is automatic plant shutdown in the event the UV units drop outside of the validated range.	

	Answer
1.21 Is there continuous monitoring of the UV units to verify operation within validation range at all times?	No
Comment	
1. There is no continuous monitoring of the UV units to verify operation within validation range at all times.	
Recommendation	
4. Install appropriate continuous monitors (e.g. UVI/UVT/flow) at the point of disinfection which are alarmed and linked to a recording device to ensure that any change in the quality of water outside the validated range for the UV treatment system or a failure of the UV disinfection system is immediately detected and responded to.	

	Answer
1.22 Can data trends from the online UV monitor(s) be viewed on-site?	No
Comment	
1. UV trends can not be viewed on-site.	
Recommendation	
5. Ensure that the UV system operates within its validated range at all times and that the performance of the UV system can be verified at all times by providing access to trended operational data.	

	Answer
1.23 Is there a documented alarm response procedure for responding to UV alarms?	No
Comment	
1. There are no UV alarms currently in place.	
Recommendation	
6. Ensure there is a documented alarm response procedure for responding to UV alarms.	

	Answer
1.24 Have staff been trained on the UV alarm response procedure?	No
Comment	
1. There are no UV alarms currently in place.	
Recommendation	
7. Ensure all staff are trained on the UV alarm response procedure.	

	Answer
1.25 Are UV alarms dialled out via a cascade system to allow a timely response by plant operators?	No
Comment	
1. There are no UV alarms currently in place.	
Recommendation	
8. Ensure that UV alarms are dialed out to a number of staff to allow a timely response in the event of staff unavailability.	

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

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

	Answer
1.28 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.