

# 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	Minane Bridge
Organisation	Uisce Éireann
Scheme Code	0500PUB2209
County	Cork
Site Visit Reference No.	SV33009

Report Detail	
Issue Date	03/10/2025
Prepared By	Joanne Creedon

Site Visit Detail			
Date Of Inspection	05/09/2025	Announced	Yes
Time In	10:54	Time Out	11:41
EPA Inspector(s)	Joanne Creedon		
Additional Visitors			
Company Personnel	Uisce Éireann: Brian Flinn, Brendan O'Brien, Claire Hurley.		

## > Summary of Key Findings

1. Disinfection consists of chlorination and ultraviolet (UV).
2. Chlorine monitors require up to date service/calibration.
3. A copy of the UV validation certificate should be maintained on-site.

## > Introduction

The Minane Bridge water treatment plant (WTP) produces approximately 17 m<sup>3</sup>/d of water serving a population of 240. This audit is an inspection of the Minane Bridge WTP and is focused on the disinfection system.

## > Supply Zones Areas Inspected

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



## 1. Disinfection Audits 2025

		Answer
1.1	Is chlorination used for primary disinfection?	No
	<b>Comment</b>	
	Chlorination is secondary.	
		Answer
1.2	Did Uisce Éireann confirm the type of chlorine disinfectant in use?	Yes
		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

		<b>Answer</b>
1.10	Is there a documented alarm response procedure for responding to chlorine alarms?	Yes
		<b>Answer</b>
1.11	Have staff been trained on the chlorine alarm response procedure?	Yes
		<b>Answer</b>
1.12	Are chlorine alarms dialled out via a cascade system to allow a timely response by plant operators?	Yes
		<b>Answer</b>
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
		<b>Answer</b>
1.14	Are service due / monitoring instrument calibration dates for the chlorine monitors within date?	No
		<b>Answer</b>
1.15	Is the site specific target contact time being achieved?	Yes
		<b>Answer</b>
1.16	Is the residual chlorine level $\geq 0.1$ mg/l at the extremity of the distribution network?	Yes
		<b>Answer</b>
1.17	Is monitoring of network residual chlorine undertaken several times per week?	Yes
		<b>Answer</b>
1.18	Is UV treatment used for primary disinfection?	Yes
	<b>Comment</b>	

UV is primary.

	<b>Answer</b>
1.19	Are there duty and standby UV units in operation? Yes
	<b>Answer</b>
1.20	Is there automatic changeover between the duty and standby UV units? Yes
	<b>Answer</b>
1.21	Is there automatic shut-off of the supply in the event of UV units failing or operating outside of their validated range? Yes
	<b>Answer</b>
1.22	Is there continuous monitoring of the UV units to verify operation within validation range at all times? Yes
	<b>Answer</b>
1.23	Can data trends from the online UV monitor(s) be viewed on-site? Yes
	<b>Answer</b>
1.24	Is there a documented alarm response procedure for responding to UV alarms? Yes
	<b>Answer</b>
1.25	Have staff been trained on the UV alarm response procedure? Yes
	<b>Answer</b>
1.26	Are UV alarms dialled out via a cascade system to allow a timely response by plant operators? Yes
	<b>Answer</b>

1.27	Are service due / monitoring instrument calibration dates for the UV units within date?	Yes
		<b>Answer</b>
1.28	Is the UV disinfection system validated to an appropriate international standard ?	No
		<b>Answer</b>
1.29	Did UÉ confirm that the UV disinfection system is operating within the validated range?	Yes

## Recommendations

Subject	Minane Bridge Disinfection Audit	Due Date	03/11/2025
Action Text	<p><b>Uisce Éireann is responsible for ensuring a clean and wholesome supply of drinking water and should implement the following recommendations without delay.</b></p> <ol style="list-style-type: none"><li>1. Ensure that the chlorine monitors are regularly serviced and calibrated in accordance with the manufacturer's instructions.</li><li>2. Ensure that the UV disinfection system is validated to an appropriate international validation standard and that a copy of the validation certificate is maintained.</li></ol> <p><b>Actions required by Uisce Éireann</b></p> <p>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.</p> <p>Uisce Éireann should submit a report to the EPA on or before 03/11/2025 detailing the actions taken and planned, with timescales, to close out the above recommendations.</p> <p>The EPA advises that the findings and recommendations from this audit report should, where relevant, be addressed at other public water supplies.</p>		