

# 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	Russelstown
Organisation	Uisce Éireann
Scheme Code	3100PUB1086
County	Waterford
Site Visit Reference No.	SV32208

Report Detail	
Issue Date	02/05/2025
Prepared By	Noel Cosgrove

Site Visit Detail			
Date Of Inspection	03/04/2025	Announced	No
Time In	12:52	Time Out	13:20
EPA Inspector(s)	Noel Cosgrove Pauline Gillard		
Additional Visitors			
Company Personnel	Uisce Éireann: Melissa Devane Waterford County Council: David Hourigan & James Power.		

## > Summary of Key Findings

1. Disinfection consists of primary Chlorination. The audit found that the disinfections system was operating correctly at the time of inspection.
2. No data trends from the online residual monitor were available on site.

## > Introduction

Russelstown WTP produces approximately 35 m<sup>3</sup>/day of water serving a population of 25 (EDEN figures). The audit focused on the disinfection system at Russelstown WTP.

## > Supply Zones Areas Inspected

The audit assessed the Chlorination disinfection system at Russelstown PWS.



## 1. Disinfection Audits 2025

		<b>Answer</b>
1.1	Is chlorination used for primary disinfection?	Yes
		<b>Answer</b>
1.2	Did Uisce Éireann confirm the type of chlorine disinfectant in use?	Yes
		<b>Answer</b>
1.3	Are there duty and standby chlorine dosing pumps in place?	Yes
		<b>Answer</b>
1.4	Is there automatic switchover in the event of failure of one of the chlorine dosing pumps?	Yes
		<b>Answer</b>
1.5	Is the chlorine dosing rate flow proportional?	Yes
		<b>Answer</b>
1.6	Is there a continuous residual chlorine monitor, with alarm, to verify chlorine dosing is taking place at the target level?	Yes
		<b>Answer</b>
1.7	Is there a continuous residual chlorine monitor, with alarm, at a suitable sample location after contact time has been completed?	Yes
		<b>Answer</b>
1.8	Can data trends from the online residual monitor be viewed on site?	No
	<b>Comment</b>	
	1. No data trends from the online residual monitor were available on site.	
		<b>Answer</b>
1.9	Are there low and high chlorine alarm settings on each chlorine monitor?	Yes

		<b>Answer</b>
<b>1.10</b>	Is there a documented alarm response procedure for responding to chlorine alarms?	Yes
		<b>Answer</b>
<b>1.11</b>	Have staff been trained on the chlorine alarm response procedure?	Yes
		<b>Answer</b>
<b>1.12</b>	Are chlorine alarms dialled out via a cascade system to allow a timely response by plant operators?	Yes
		<b>Answer</b>
<b>1.13</b>	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>
<b>1.14</b>	Are service due / monitoring instrument calibration dates for the chlorine monitors within date?	Yes
		<b>Answer</b>
<b>1.15</b>	Is the site specific target contact time being achieved?	Yes
		<b>Answer</b>
<b>1.16</b>	Is the minimum effective contact time of 15 mg. min/l being achieved?	Yes
		<b>Answer</b>
<b>1.17</b>	Is the residual chlorine level $\geq 0.1$ mg/l at the extremity of the distribution network?	Yes
		<b>Answer</b>
<b>1.18</b>	Is monitoring of network residual chlorine undertaken several times per week?	Yes

## Recommendations

Subject	Audit Recommendations	Due Date	02/06/2025
Action Text	<p><b>Uisce Éireann is responsible for ensuring a clean and wholesome supply of drinking water and should implement the following recommendation without delay.</b></p> <p>1. Ensure that residual Chlorine trends are available and accessible on-site to plant operators via HMI/Scada.</p> <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 02/06/2025 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>		