

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	Rathangan
Organisation	Uisce Éireann
Scheme Code	1400PUB1041
County	Kildare
Site Visit Reference No.	SV27990

Report Detail	
Issue Date	22/08/2023
Prepared By	Joanne Creedon

Site Visit Detail			
Date Of Inspection	01/08/2023	Announced	Yes
Time In	11:10	Time Out	11:31
EPA Inspector(s)	Joanne Creedon		
Additional Visitors			
Company Personnel	Uisce Eireann: Jessica Evans Veolia (working in partnership with Uisce Éireann): Mark Robinson, Charlotte O'Hare, Keith McEvoy		

> Summary of Key Findings

- (1) Disinfection consists of chlorination. The audit found that the disinfection system was operating satisfactorily during the inspection.
- (2) Manual switchover between duty and standby chlorine pumps is currently in place at the plant. Automatic switchover does not occur.
- (3) The frequency of monitoring and concentration of residual chlorine in the network should be recorded.

> Introduction

The Rathangan Water Treatment Plant (WTP) serves a population of 6410 (EDEN figures). The audit focused on the disinfection system at the Rathangan WTP.

> Supply Zones Areas Inspected

This audit assessed the chlorination disinfection system at Rathangan WTP.



1. Disinfection Audits 2023

		Answer
1.1	Is chlorination used for primary disinfection?	Yes
		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?	No
	Comment	
	Manual switchover is currently in place at the WTP.	
		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 site specific target contact time being achieved?	Yes
		Answer
1.16	Is the residual chlorine level \geq 0.1 mg/l at the extremity of the distribution network?	No
	Comment	
	This information was not available at the time of the audit. Kildare County Council to provide network chlorine residual monitoring results to Uisce Éireann.	
		Answer
1.17	Is monitoring of network residual chlorine undertaken several times per week?	No
	Comment	

This information was not available at the time of the audit. Kildare County Council to provide network chlorine residual monitoring results to Uisce Éireann.

Recommendations

Subject	Rathangan WTP - Disinfection Audit	Due Date	22/09/2023
Action Text	<p>Uisce Éireann is responsible for ensuring a clean and wholesome supply of drinking water and should implement the following recommendations without delay.</p> <ol style="list-style-type: none">1. Uisce Éireann should install duty and standby chlorine dosing pumps with automatic switch in the event of the failure of one of the pumps.2. Uisce Éireann should ensure that residual free chlorine concentrations in the network extremities are at least 0.1 mg/l to maintain adequate secondary disinfection.3. Uisce Éireann should ensure monitoring of residual chlorine is undertaken several times a week at different points of the network to include the network extremities. <p>Actions required by Uisce Éireann</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 22/09/2023 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>		