

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	Ratharoon
Organisation	Uisce Éireann
Scheme Code	0500PUB2108
County	Cork
Site Visit Reference No.	SV30432

Report Detail	
Issue Date	11/10/2024
Prepared By	Paul Buckley

Site Visit Detail			
Date Of Inspection	11/09/2024	Announced	Yes
Time In	11:00	Time Out	11:45
EPA Inspector(s)	Paul Buckley Sean O'Leary		
Additional Visitors			
Company Personnel	Uisce Éireann: Claire Hurley, Cormac Bergin, Sharon O'Dwyer. Cork County Council (working in partnership with Uisce Éireann): David Caroll, David Coffey.		

> Summary of Key Findings

1. Bromate in exceedance of the drinking water standard of 10 ug/L was detected in the final treated water in a sample taken at the Ratharoon Public Water Supply on 04/06/2024 (26 ug/L). Following consultation with the HSE, a Do Not Consume Notice was issued on 28/06/2024. A total of 9 No. further detections at the water treatment plant and in the network were reported to the EPA. The Do Not Consume Notice was still in place on the day of the audit and was subsequently rescinded on 12/09/2024.
2. The audit found that Uisce Éireann had promptly identified the cause of the bromate exceedances and undertaken the required action to remove the source of bromate in the treated water at the water treatment plant.
3. Uisce Éireann did not undertake monitoring for Bromate at the required frequency in the Ratharoon Public Water Supply as set out in the 2023 Drinking Water Regulations. 1 No. sample per year is required, Uisce Éireann stated that the most recent sample taken prior to 2024 was taken in 2020.
4. The Ratharoon Public Water Supply is on the Uisce Éireann National pH file as it has persistent low pH (< 6.5 pH). At present the remedial works required to correct the pH issue have not been determined by Uisce Éireann.

> Introduction

The Ratharoon Public Water Supply (PWS) supplies an average of 34 m3/day of water, serving a population of 8 people.

The supply is sourced from a borehole that is located within the water treatment plant. Treatment consists of ultraviolet disinfection and chlorination.

The audit was undertaken in response to Uisce Éireann's notification to the EPA of a bromate exceedance in the supply on 04/06/2024 and the subsequent Do Not Consume Notice put in place on 28/06/2024. The Do Not Consume Notice was subsequently rescinded on 12/09/2024.

> Supply Zones Areas Inspected

The borehole, ultraviolet disinfection system, chlorine dosing system, and chlorine sampler waste line were inspected.



1. Incident Management

	Answer
1.1	Was the incident suitably alerted to the plant operators, escalated and managed in order to maintain water quality and protect public health?
	Yes
Comment	
<p>On 26/06/2024, Uisce Éireann received a Bromate result of 26 ug/L from an operational sample taken at the Ratharoon water treatment plant on 04/06/2024, which is in exceedance of the drinking water standard of 10 ug/L. Following consultation with the HSE, a Do Not Consume Notice was placed on the entire supply of 8 people on 28/06/2024.</p> <p>Subsequent sampling at the water treatment plant and in the network found exceedances on 02/07/2024, 10/07/2024, 11/07/2024, 12/08/2024, and 13/08/2024 respectively.</p> <p>Uisce Éireann conducted an investigation into the cause of the elevated bromate and identified a faulty non-return valve and an issue with the recirculation of treated water into the borehole from the chlorine monitor waste line. Uisce Éireann replaced the non-return valve and constructed a soakaway for the chlorine waste line on 22/08/2024. A new carbon filter was also installed on the chlorine monitor waste line. Samples taken on 28/08/2024 and 29/08/2024 were compliant. The use of ultra-low bromate sodium hypochlorite was commenced on 03/09/2024.</p> <p>The Do Not Consume Notice lifted on 12/09/2024 following consultation with the HSE.</p>	



2. Site Specific Issues

	Answer	
2.1	Are final water pH results compliant with parametric values?	No
Comment		
The Ratharoon Public Water Supply is on the Uisce Éireann National pH file due to persistent low pH (< 6.5). In the Q2 2024 update submitted by Uisce Éireann on 16/07/2024, there was no timeframe available for the completion of the remedial works required at the water treatment plant.		

	Answer	
2.2	Was compliance monitoring undertaken as required by the European Union (Drinking Water) Regulations 2023?	No
Comment		
Uisce Éireann stated that prior to the sample taken on 04/06/2024, the most recent sample result for bromate was from the year 2020. This is not in line with the legislative requirements for the monitoring of chemical parameters as stipulated in Table B, Schedule 1 of the <i>European Union (Drinking Water) Regulations 2023</i> .		

Recommendations

Subject	Ratharoon PWS Audit Recommendations 11/09/2024	Due Date	11/11/2024
Action Text	<p>Uisce Éireann is responsible for ensuring a clean and wholesome supply of drinking water and should implement the following recommendation(s) without delay.</p> <ol style="list-style-type: none">1. Ensure that remedial works required to restore compliance with the pH parametric values are progressed. Provide updates through the National pH file as required.2. Ensure that monitoring is undertaken for compliance with the required Group A and Group B parameters at the required frequencies in accordance with the requirements of the <i>European Union (Drinking Water) Regulations 2023 (S.I. 99 of 2023)</i>. <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 11/11/2024 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>		