

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	Tullamore North PWS
Organisation	Uisce Éireann
Scheme Code	2500PUB1025
County	Offaly
Site Visit Reference No.	SV27608

Report Detail	
Issue Date	29/03/2023
Prepared By	Lisa Noone

Site Visit Detail			
Date Of Inspection	02/03/2023	Announced	Yes
Time In	10:30	Time Out	12:13
EPA Inspector(s)	Lisa Noone		
Additional Visitors			
Company Personnel	Uisce Éireann: Joseph Moran, Pat Collins, John Gavin, Paul Cahill Offaly County Council (working in partnership with Uisce Éireann): John Daly, Keith Brazil, Rodge Larkin, Clodagh Graham, James Joyce, Joe Coleman		

> Summary of Key Findings

1. The audit found that alarms and inhibits at Tullamore North and Ardan Water Treatment Plant (WTP) were set at suitable levels to protect treated water quality.
2. Uisce Éireann should ensure that an appropriate cascade system and associated procedures are put in place for responding to alarms generated at the plant allowing for verification that an alarm has been responded to.

> Introduction

Tullamore North/Aradan Public Water Supply (PWS) serves a population of approximately 12,200 in Tullamore North and Ardan, Co. Offaly with an average output of 4,200m³ at the plant per day. The newly commissioned Ardan WTP was under a Design, Build and Operate (DBO) contract with Murphy Ireland Ltd. and was handed over to Offaly County Council in partnership with Uisce Éireann on 23rd January 2023.

Intake is via groundwater from three boreholes supplies at the WTP - Ardan BH1, BH2, BH4 (combined yield approx. 1,540m³/day) in addition to Silogue Well (2,860m³/day). BH5 at the WTP is currently not in service. Treatment at the plant comprises of UV disinfection, chlorination and fluoridation with treated storage in the Old and New Reservoir with a capacity of 4,090 m³ and 2,000 m³ respectively.

The audit of Ardan WTP was carried out to assess the performance of Uisce Éireann in providing clean and wholesome drinking water and focused on the alarms, inhibits and oversight of the treatment processes.

> Supply Zones Areas Inspected

The audit comprised of a site visit to Ardan WTP and involved an assessment of the alarms/inhibits at the treatment plant and the procedures in place to ensure appropriate management and oversight of same. Silogue Well and the Old and New Reservoirs were not inspected as part of the audit.



1. Alarms, Inhibits & Oversight Audits 2023

	Answer	
1.1	Were online monitors within their calibration dates?	Yes
Comment		
1. Online monitors were within their calibration dates however the date of last calibration and calibration due date was not indicated on each monitor by a sticker.		

	Answer	
1.2	Are dial out arrangements suitable to allow a timely response?	No
Comment		
1. Critical alarms are dialled-out on a group-basis to the site caretakers and operational personnel. Alarms are responded to on a hierarchical basis, however there is no way of verifying that they have been responded to.		
2. Ardan WTP has an additional telemetry response layer whereby actions in response to alarm dial-outs can be overseen by the Uisce Éireann National Operations Management Centre (NOMC) to ensure they have been addressed.		

	Answer	
1.3	Is there a documented alarm response procedure?	No
Comment		
1. There is no documented site specific procedure detailing how alarms are responded to at the WTP.		



2. Site Specific Issues

	Answer
2.1 Have all caretakers received relevant training?	No
Comment	
1. One of the plant caretakers had yet to undertake the relevant Level 5 water treatment plant operators training course.	

Recommendations

Subject	Tullamore North and Ardan Audit 02/03/2023	Due Date	29/04/2023
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. Put in place an appropriate cascade system for responding to alarms generated at the plant which allows for verification that an alarm has been responded to.2. Put a documented procedure in place for responding to and escalating all alarms generated at the water treatment plant. The procedure should clearly document the corrective actions and set out delegation of responsibilities.3. Ensure that the date of last calibration and calibration due date is clearly indicated on each individual monitor by a legible sticker.4. Ensure that all staff receive appropriate training relevant to their role at the WTP. <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 29/04/2023 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>		