

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	Gorteen PWS
Organisation	Uisce Éireann
Scheme Code	1500PUB1016
County	Kilkenny
Site Visit Reference No.	SV29635

Report Detail	
Issue Date	19/07/2024
Prepared By	David O'Malley

Site Visit Detail			
Date Of Inspection	17/06/2024	Announced	Yes
Time In	10:50	Time Out	12:15
EPA Inspector(s)	David O'Malley		
Additional Visitors			
Company Personnel	Uisce Éireann: Denis McGrath. Kilkenny County Council (working in partnership with Uisce Éireann): Denis Lawlor, Kevin Hogan, Eugene Halley, Clare Dowling, Shane Aylward, John Coady.		

> Summary of Key Findings

1. There is no UV shutdown or a UV standby unit at the plant to ensure inadequately treated water does not enter the network.
2. A cascade system and associated procedures for responding to alarms generated at the plant were not displayed at the WTP.

> Introduction

The Gorteen Public Water Supply (PWS) supplies an average of 60 m³/day of water, serving a population of 307 (2023 EDEN figures) serving the environs of Gorteen. The source for the supply is three boreholes and treatment consists of iron and manganese removal via filtration, UV disinfection, chlorination and fluoridation.

> Supply Zones Areas Inspected

The media filters, UV disinfection system, chlorination dosing system and pumps at water treatment plant (WTP) were inspected.



1. Management and Control

		Answer
1.1	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. Protozoal Barriers Audits 2024

	Answer	
2.1	Is there a documented site specific incident response and incident escalation process?	No
Comment		
1. There is no documented site-specific incident response detailing contacts for escalation and relevant trigger levels at the WTP.		

	Answer	
2.2	Has UÉ identified the protozoal compliance log treatment requirement for the water treatment plant?	No
Comment		
1. Uisce Éireann confirmed that a Source and Sanitary Survey has not been completed and that the protozoal compliance log treatment requirement has not yet been determined for this WTP.		

	Answer	
2.3	Is the UV system suitably validated?	No
Comment		
1. There was no validation certification available for the UV system.		

	Answer	
2.4	Are there duty and standby UV units in operation?	No
Comment		
1. There is no UV standby unit in operation at the WTP.		

	Answer	
2.5	Are alarms and shutdowns appropriately set on the UV disinfection system?	No
Comment		

1. There are no UV disinfection system shutdown enabled at the WTP.



3. Site Specific Issues

	Answer
3.1 Is there appropriate bunding for chlorine drum containment?	No
Comment	
1. Transfer of chlorine from drum (approx. 20l) to day tank is not being carried out in a bunded area.	

Recommendations

Subject	Audit Recommendations	Due Date	16/08/2024
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. Submit (i) a copy of the UV validation certificate for the UV disinfection system in use at the treatment plant (ii) Install UV shutdown at the plant.2. Install a standby UV unit at the plant.3. Log Credits: (i) Confirm the protozoal log treatment requirement for the spring sources following completion of the sanitary survey; and (ii) provide details on how the protozoal log deficit if any will be addressed.4. Develop and display the Uisce Éireann Incident Communications Response Guidance Form with site specific information including contacts for escalation and relevant trigger levels protecting critical processes at the water treatment plant. Ensure that all staff are trained on the response procedures.5. 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 and ensure documented procedures are put 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.6. Ensure chlorine is transferred from drums to the day tank in a bunded area. Chemicals should be stored in bunded areas capable of containing at least 110% of the volume of chemicals stored therein. <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 16/08/2024 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>		