

Site Visit Report

Under the *European Union (Drinking Water) Regulations 2014* as amended, 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	Newport RWSS
Organisation	Uisce Éireann
Scheme Code	2800PUB1004
County	Tipperary
Site Visit Reference No.	SV27527

Report Detail	
Issue Date	13/03/2023
Prepared By	Criona Doyle

Site Visit Detail			
Date Of Inspection	28/02/2023	Announced	Yes
Time In	10:30	Time Out	12:05
EPA Inspector(s)	Criona Doyle		
Additional Visitors			
Company Personnel	Uisce Éireann: Pat Duggan; Samantha Keane; Ciaran Phelan. Tipperary County Council (working in partnership with Uisce Éireann): Niall Murray; Matt O'Leary; Pat Spain.		

> Summary of Key Findings

- (1) There is no documented incident response procedure in place at the treatment plant. Inhibits are in place to trigger automatic plant shutdown in response to critical alarms at the Newport Water Treatment Plant (WTP).
- (2) There are upgrade works ongoing at the treatment plant. Filter No.1 was offline for refurbishment works on the day of the audit. Works on the remaining filters are scheduled to be completed by the end of April 2023.
- (3) Chlorinated water from O'Gormans Well mixes with the final treated water from the Newport WTP. There is no treatment barrier in place at O'Gormans Well to prevent *Cryptosporidium* entering the Newport Regional Public Water Supply.

> Introduction

Newport Regional Public Water Supply (PWS) supplies a population of 7,321 with a volume of approximately 2,600m³/d (EDEN figures). Raw water is abstracted from the Mulkear River. Treatment includes raw water pH correction (not required on continuous basis), coagulation (aluminium sulphate and polyelectrolyte), clarification, rapid gravity filtration and chlorination. Treated water (chlorinated) from O'Gormans Well Water Treatment Plant (WTP) is mixed with the treated water from the Newport Regional (WTP) at the Cully Reservoir where fluoridation takes place.

The focus of the audit was on alarms and inhibits of the treatment processes and oversight.

> Supply Zones Areas Inspected

All the main water treatment plant areas of the Newport Regional Water Treatment Plant were inspected. The O'Gormans Well Water Treatment Plant was not visited.



1. Treatment Process Chemicals

	Answer
1.1 Are treatment process chemicals appropriately managed and stored?	No
Comment	
<p>The aluminium sulphate and caustic soda bulk storage tanks and delivery points are located within the same building. A build up of residue from spilled chemicals was observed at the delivery points. Site operational staff outlined that it is not possible to clean the delivery points as a specialist contractor is required to undertake these works due to health and safety issues. Works are planned to upgrade the aluminium sulphate and caustic soda chemical storage area.</p>	



2. Management and Control

	Answer
2.1 Has the protozoal compliance log treatment requirement been identified for the water treatment plant?	No
Comment	
<p>The protozoal log treatment requirement for O'Gormans Well WTP has not been assessed. The log requirement for Newport WTP is 3 log.</p> <p>Monthly monitoring of <i>Cryptosporidium</i> is undertaken at both O'Gormans Well WTP and the Newport WTP. There have been no <i>Cryptosporidium</i> detections to date.</p>	



3. Alarms, Inhibits & Oversight Audits 2023

		Answer
3.1	Is there a documented site specific incident response and incident escalation process?	No
Comment		
The Uisce Éireann Incident Communication Response Guidance Form is not displayed at the Newport WTP. A list of emergency contact numbers was on display.		

		Answer
3.2	Has UÉ carried out an alarm and inhibit review at the water treatment plant?	No
Comment		
The alarm and inhibit review has not been carried out. This is scheduled to take place when the upgrade works on the remaining filters has been completed.		

		Answer
3.3	Is there appropriate oversight of plant performance trends?	No
Comment		
It was confirmed that the filtered water turbidity trends and residual chlorine trends are visible on the Uisce Éireann iNTS but no information was available on how often the data is reviewed by supervisory staff.		

		Answer
3.4	Is there appropriate oversight of alarm responses?	No
Comment		
Operational staff undertake a review of alarm responses and lessons learned. No information was available on how often the data is reviewed by supervisory staff but operational staff confirmed they escalate high turbidity alarms and low or high chlorine alarms as required.		

Answer

3.5

Is there a documented alarm response procedure?	No
Comment	
There was no documented alarm response procedure.	



4. Site Specific Issues

	Answer
4.1 Have redundant monitors been clearly labelled as no longer in use ?	No
Comment	
A number of monitors have been made redundant at the WTP and replaced by new monitors. The redundant monitors are not clearly marked as no longer in use.	

Recommendations

Subject	Newport Regional PWS - Audit	Due Date	13/04/2023
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. Ensure (i) the Incident Communication Response Guidance Form is displayed at the Newport WTP with site specific information including contacts for escalation and relevant trigger levels protecting critical processes at the water treatment plant (ii) that there is appropriate oversight of alarm responses by supervisory staff and (iii) there are documented site specific alarm response procedures.2. Confirm (i) the protozoal log treatment requirement for the O’Gormans Well source (ii) confirm how any protozoal log treatment deficit for the Newport WTP and O’Gormans Well WTP will be addressed following the completion of the alarm and inhibit review.3. Ensure redundant monitors are clearly labelled as not being in use.4. Progress the upgrade works for the bulk chemical storage areas (aluminium sulphate and caustic soda).5. Ensure there are robust systems of reviews and checks on water treatment plant performance data by supervisory staff. <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 13/04/23 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>		