Site Visit Report

Under the European Union (Drinking Water) Regulations 2014 as amended, the Environmental Protection Agency is the supervisory authority in relation to Irish Water and its role in the provision of public water supplies. This Audit was carried out to assess the performance of Irish Water in providing clean and wholesome water to the visited public supply.

The audit process is a sample on a given date of the facility's operation. Where a finding against a particular issue has been reported this should not be construed to mean that this issue is fully addressed.

Water Supply Zone

Name of Installation	Glenary
Organisation	Irish Water
Scheme Code	2900PUB0134
County	Tipperary
Site Visit Reference No.	SV25547

Report Detail

Issue Date	10/06/2022
Prepared By	Criona Doyle

Site Visit Detail

Date Of Inspection	17/05/2022	**Announced**	Yes
Time In	10:30	**Time Out**	11:15
EPA Inspector(s)	Criona Doyle		
Additional Visitors	Joanne Creedon; Joe Brereton.		
Company Personnel	Irish Water: Samantha Keane; Pat Duggan. Tipperary County Council (acting under service level agreement to irish Water): Brid O'Hehir; Eoin Lawlor; Fintan Collins; John Fogarty.		

Summary of Key Findings

(1) Disinfection consists of chlorination. The audit found that the disinfection system was operating satisfactorily during the inspection.

(2) Irish Water advised that there is no automatic shutdown of the WTP linked to the chlorine alarms and that residual chlorine trends cannot be viewed on site.

(3) The frequency of residual chlorine monitoring in the network should be increased.

Introduction

The Glenary Public Water Supply (PWS) produces approximately 3,690m3/d of water serving a population of 11,020 (EDEN figures). The audit focused on the disinfection system at Glenary Water Treatment Plant (WTP). The site was assessed under Irish Water's Disinfection Programme and reported to the EPA as having been fully commissioned and available on telemetry on 30/10/2020. Irish Water informed the EPA on 06/05/22/prior to the audit that the Disinfection Programme works were limited to the installation of a contact coil. Further upgrade works are planned at the site under a separate contract as the scale of upgrade works required was outside the scope of the Disinfection Programme.

Supply Zones Areas Inspected

This audit assessed the chlorination disinfection system at the Glenary WTP.

1. Disinfection Programme Audits 2022

		Answer
1.1	Is chlorination used for primary disinfection?	Yes

		Answer
1.2	Can you establish what type of chlorine disinfectant is used?	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?	Yes

		Answer
1.5	Is the chlorine dosing rate flow proportional?	Yes

		Answer
1.6	Is the chlorine dosing rate fixed?	Not Applicable

		Answer
1.7	Can IW / LA confirm the target residual chlorine level for the final water leaving the plant?	Yes

		Answer
1.8	Is there a continuous residual chlorine monitor on the final water?	Yes

		Answer
1.9	Can data trends from the online residual monitor be viewed on site?	No

Comment

Residual chlorine trends cannot be viewed on site but are available to view in Tippeary County Council offices.

		Answer
1.10	Are there low and high chlorine alarm settings?	Yes

		Answer
1.11	Is there an alarm response procedure available on site for responding to chlorine alarms?	Yes

		Answer
1.12	Is there automatic shutdown of the supply in the event of the chlorine level dropping below the low chlorine alarm setting or rising above the high chlorine alarm setting?	No
	Comment	
	There is no automatic plant shutdown linked to the chlorine alarms.	

		Answer
1.13	Are service due / monitoring instrument calibration dates for the chlorine monitors within date?	Yes

		Answer
1.14	Is the site specific contact time being achieved ? If answer is NO, proceed to question 15	Yes

		Answer
1.15	Is the minimum effective contact time of 15 mg. min/l being achieved?	Not Applicable

		Answer
1.16	Is the residual chlorine level ≥ 0.1 mg/l at the extremity of the distribution network?	Yes
	Comment	
	Monitoring of the residual chlorine levels at network extremities is not being done several times per week.	

		Answer
1.17	Have all relevant staff received training on the disinfection upgrades?	Not Applicable
	Comment	
	Not applicable as works were limited to installation of contact coil.	

Recommendations

Subject	Glenary PWS - Disinfection Audit	Due Date	11/07/2022
Action Text	**Recommendations** **Irish Water is responsible for ensuring a safe and secure supply of drinking water. To address these issues, Irish Water should implement the following recommendations without delay.** 1. Irish Water should ensure that residual chlorine trends are available and accessible on site to plant operators via SCADA / HMI. 2.Irish Water should install automatic shutdown of the plant linked to the low and high residual chlorine alarm settings. 3. Irish Water should ensure monitoring of residual chlorine is undertaken several times a week at different points of the network to include the network extremities. **Follow-Up Actions required by Irish Water** During the audit, Irish Water representatives were advised of the audit findings and that action must be taken as a priority by Irish Water to address the issues raised. This report has been reviewed and approved by Regina Campbell, Drinking Water Team Leader. Irish Water should submit a report to the Agency on or before 11/07/22 detailing how it has dealt with the issues of concern identified during this audit. The report should include details on the action taken and planned to address the various recommendations, including time frame for commencement and completion of any planned work. The EPA also advises that the findings and recommendations from this audit report should, where relevant, be addressed at all other treatment plants operated and managed by Irish Water. Please quote Compliance Plan DW20220048 in any future correspondence in relation to this Report.		