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	Lough Easkey Regional Water Supply
Organisation	Irish Water
Scheme Code	2700PUB2704
County	Sligo
Site Visit Reference No.	SV26076

Report Detail

Issue Date	29/11/2022
Prepared By	Joseph Brereton

Site Visit Detail

Date Of Inspection	18/10/2022	**Announced**	Yes
Time In	10:30	**Time Out**	11:20
EPA Inspector(s) **Additional Visitors**	Joseph Brereton		
Company Personnel	Irish Water: Yvonne McMonagle, Fionnuala Bonner Sligo Co. Council: Ken Wright, Declan Kevany, Peter Duignan, James Melvin		

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.

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

Introduction

The Lough Easkey Regional Public Water Supply (PWS) produces approximately 3,168m3/d of water serving a population of 5,885 (EDEN figures). The audit focused on the disinfection system at the Lough Easkey Water Treatment Plant (WTP). The site has been assessed under Irish Water's Disinfection Programme and reported to the EPA as having been fully commissioned and available on telemetry on 19/09/2017.

Supply Zones Areas Inspected

This audit assessed the chlorination disinfection system at the Lough Easkey WTP.

1. Disinfection Programme Audits 2022

		Answer
1.1	Is chlorination used for primary disinfection?	Yes

		Answer
1.2	Did Irish Water confirm the type of chlorine disinfectant in use?	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?	Yes

		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 shutdown of the supply linked to the low and high 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?	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?	No
	Comment	
	There was no regular programme for monitoring chlorine residuals in the extremities of the network. No results of chlorine residual monitoring in the network were available on site. There are 9 reservoirs on the network with residual chlorine monitors that link back to SCADA.	

		Answer
1.17	Have all relevant staff received training on the disinfection upgrades?	Yes

Recommendations

Subject	Lough Easkey - Disinfection Audit	**Due Date**	29/12/2022
Action Text	**Recommendations** **Irish Water is responsible for ensuring a safe and secure supply of drinking water. Irish Water should implement the following recommendation without delay.** 1. Irish Water should install automatic shutdown of the plant linked to the low and high residual chlorine alarm settings. 2. 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 Ruth Barrington, Drinking Water Team Leader. Irish Water should submit a report to the Agency on or before 29/12/2022 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.		