



Drinking Water Audit Report

County:	Clare	Date of Audit:	28/10/2015
Plant(s) visited:	Feakle Water Treatment Plant.	Date of issue of Audit Report:	27/11/2015
		File Reference:	DW2015/191
		Auditors:	Mr Niall Dunne
Audit Criteria:	<ul style="list-style-type: none"> • The <i>European Union (Drinking Water) Regulations 2014 (S.I. 122 of 2014)</i>. • <i>The EPA Handbook on the Implementation of the Regulations for Water Services Authorities for Public Water Supplies (ISBN: 978-1-84095-349-7)</i> • The recommendations specified in the <i>EPA Drinking Water Report</i>. • The recommendations in any previous audit reports. 		

MAIN FINDINGS

- i. **There is no chlorine residual alarm or auto switchover between the duty and standby chlorine dosing pumps at the Feakle treatment plant. The EPA issued a direction on the 19/11/2015 to Irish Water for the installation of an operational chlorine alarm and auto switch over between the duty and standby pumps by the 1st February 2016.**
- ii. **Clare County Council estimates that there are four premises on this supply that receive drinking water without the chlorine contact time of 15 mg.min/l, as recommended by the WHO. Irish Water must, as a priority, put remedial measures in place to ensure that all consumers receive adequately disinfected water.**

1. INTRODUCTION

Under the *European Union (Drinking Water) Regulations 2014* 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 only the disinfection system on this supply.

Feakle supplies approximately 300 consumers. The source for the supply is a borehole. Treatment consists of chlorination, which is dosed prior to the reservoir. Clare County Council estimate that approximately four premises, located prior to the reservoir, receive inadequately disinfected water.

Photographs taken by Niall Dunne during the audit are attached to this report and are referred to in the text where relevant.

The opening meeting commenced at 12:00 at the Feakle water treatment plant. The scope and purpose of the audit were outlined at the opening meeting. The audit process consisted of interviews with staff, review of records and observations made during an inspection of the treatment plant. The audits observations and recommendations are listed in Section 2 and 4 of this report. The following were in attendance during the audit.

Representing Irish Water: (* indicates that person was also present for the closing meeting)

Deirdre O'Loughlin; Compliance Specialist - Irish Water.

Duane O'Brien; Regional Operations - Irish Water.

Rory O' Dea; Senior E.H.O - HSE.

Anthony Mc Namara; Senior Executive Engineer - Clare County Council.

Patricia Ryan; Area Technician - Clare County Council

Richard Mc Arthur; Caretaker - Clare County Council.

Representing the Environmental Protection Agency:

Niall Dunne: Inspector – EPA.

2. AUDIT OBSERVATIONS

The audit process is a random sample on a particular day of a facility's operation. Where an observation or recommendation against a particular issue has not been reported, this should not be construed to mean that this issue is fully addressed.

1. Chlorination and Disinfection

- a. Duty standby chlorine dosing pumps were in place at the Feakle water treatment plant (see photograph 1).
- b. Clare County Council (CCC) confirmed that there was no auto switchover between the duty and standby pumps.
- c. CCC estimate that approximately four premises located prior to the reservoir receive inadequately disinfected water.
- d. CCC stated that the chlorine residual monitor is capable of storing 24 hours of monitoring data.
- e. CCC stated they have not recently taken and bacteriological samples at any of the four houses located prior to the reservoir.
- f. The chlorine monitor is located after the Feakle reservoir, (see photograph 2).
- g. CCC stated they test chlorine levels after the reservoir on a daily basis, but that they do not test chlorine levels at the end of the network.

3. AUDITORS COMMENTS

A direction was issued to Irish Water on the 19/11/2015 for the installation of chlorine residual alarm and auto switchover between the duty and standby chlorine dosing pumps in the Feakle public water supply. The alarm is to be linked to a recording device to ensure any failure of the dosing system is immediately detected. The chlorine residual alarm and the auto switchover between the duty and standby pumps are required to be installed by the 1st February 2016. The installation of the continuous chlorine residual alarm and the auto switchover between the duty and standby chlorine dosing pumps are dealt with under this direction.

Clare County Council estimates that approximately four premises on this supply do not receive water with a chlorine time of 15 mg.min/l, as recommended by the World Health Organisation. Irish Water as priority should put remedial measures in place to ensure that all consumers on this supply receive adequately disinfected water.

Irish Water must ensure that all chlorine dosing systems under their responsibility are in compliance with *EPA Advice Note No. 3: E.coli in Drinking Water*.

4. RECOMMENDATIONS

1. Irish Water is requested to submit proposals, with timeframes, to ensure that all consumers on this supply receive adequately disinfected water, with a contact time of 15 mg.min /l, as recommended by the World Health Organisation.
2. Irish Water must ensure that the chlorine residual monitor is linked to a recording device which can store adequate quantities of data allowing for identification of trends in chlorine demands.
3. Irish Water is requested to submit a minimum of three bacteriological samples taken before the reservoir i.e. prior to the disinfection contact time being achieved.

FOLLOW-UP ACTIONS REQUIRED BY IRISH WATER

During the audit Irish Water representatives were advised of the audit findings and actions that must be taken as a priority by Irish Water to address the issues raised. This report has been reviewed and approved by Ms Yvonne Doris, Drinking Water Team Leader.

Irish Water should submit a report to the Agency within one month of the date of this audit report detailing how it has dealt with the recommendations above. The report should include details on the action taken and planned to address the various recommendations, including timeframe for commencement and completion of any planned work.

A direction has been issued by the Agency under a separate cover legally requiring specific recommendations to be implemented by Irish Water.

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 the File Reference Number DW2015/191 in any future correspondence in relation to this Report.

Report prepared by:



Date:

27/11/2015

Inspector

Photograph 1: Duty and standby chlorine dosing pumps at the Feakle water treatment plant. There is no auto switchover between the two pumps.



Photograph 2: Chlorine residual monitor located after the Feakle reservoir. There are no dial out alarms in place.

