

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	Kealkill
Organisation	Irish Water
Scheme Code	0500PUB4105
County	Cork
Site Visit Reference No.	SV18358

Report Detail	
Issue Date	30/09/2019
Prepared By	Criona Doyle

Site Visit Detail			
Date Of Inspection	18/09/2019	Announced	Yes
Time In	11:40	Time Out	12:20
EPA Inspector(s)	Criona Doyle		
Additional Visitors			
Company Personnel	Irish Water: Deirdre O' Loughlin; Tommy Roche Cork County Council: Michael Russell; Seamus Sutton; Gerard McSweeney. EPS: David Cotter		

> Summary of Key Findings

Irish Water has not complied with the EPA's Regulation 16(1) Direction to ensure that the drinking water supplied to consumers on the Kealkill public water supply complies with the trihalomethanes parametric value by 31/12/2018.

The audit confirmed that construction works are underway at the site. The prefabricated dissolved air flotation (DAF) unit and rapid gravity filters have been installed. The UV units have been delivered to site. It was outlined that the civil works would take a further two weeks to complete.

Irish Water indicated that commissioning of the new treatment process would commence in early October with the commissioning phase to be completed by 23/10/19. The expected date for overall completion of works is 18/11/19. Irish Water expect that verification data will be provided by the end of Q4 2019.

Irish Water should continue to progress the remedial works without delay and provide quarterly updates to the EPA on progress until the works have been completed. Following the completion of the works verification data will be submitted by Irish Water to demonstrate the works have been satisfactorily completed.

> Introduction

The Kealkill Public Water Supply (PWS) in Co. Cork serves a population of approximately 701. A Regulation 16(1) Direction was issued to Irish Water on the 5th of June 2015 requiring that the drinking water supplied to consumers complied with the trihalomethanes parametric value no later than 31st of December 2018. The Kealkill PWS is on the EPA's Remedial Action list (RAL) for public water supplies as a result of persistent trihalomethanes failures. This audit was carried out to determine progress with the RAL completion date and compliance with the EPA's Regulation 16(1) Direction.

The proposed remedial works at the Kealkill PWS include the decommissioning of the slow sand filters and the upgrading of the treatment process to include dissolved air flotation (DAF), rapid gravity filtration and UV disinfection.

> Supply Zones Areas Inspected

The treatment plant facilities at Kealkill were examined to determine progress with the remedial works.



1. Supply on the Remedial Action List

1.1

Is the Action Programme on track to meet the Remedial Action List completion date?

Answer

No

Comment

The remedial actions have not been completed by the RAL completion date of September 2019. At the audit it was outlined that commissioning of the new treatment process would be completed by 23/10/19 and the expected overall date for completion of the works is 18/11/19.

Irish Water reported that the slippage in the RAL completion date from September to November was due to ground conditions and rock being encountered. This resulted in delays to the completion of some of the civil elements of the works.

1.2

Do the audit findings support progress made with the Remedial Action List upgrades?

Answer

Yes

Comment

The remedial works to upgrade the treatment process at Kealkill PWS are underway.

A new treatment plant building has been constructed on site. The prefabricated process equipment has been installed on site. The equipment observed at the audit included: flash mixer, dissolved air flotation unit, 2 no. rapid gravity filters and 2 no. UV reactors. The bunded areas for the chemical stores have been constructed on site.

The outstanding works include the installation of the electrical panels, dosing cabinets, chemical storage tanks and monitoring equipment. One of the existing slow sand filters is to be converted to a raw water holding tank. The filter media has not been installed in the rapid gravity filters. Commissioning and instrumentation checks have yet to be undertaken.

1.3

Is further information needed to assess completion of the Remedial Action List upgrade?

Answer

Yes

Comment

Verification data will be required to ensure the remedial measures have been successful. Irish Water have indicated that verification data will be provided in Quarter 4 2019 following the commissioning of the new treatment process.

Subject	Kealkill Audit	Due Date	30/10/2019
Action Text	Recommendation(s) 1. Irish Water shall complete the proposed upgrade works to ensure the supply is compliant with the THMs parametric value. Irish Water shall notify the EPA when works are complete. The current completion date of 18/11/19 goes beyond the Regulation 16(1) Direction deadline of 31/12/2018. 2. Irish Water shall carry out monitoring of THMs following commissioning of the works to demonstrate the water supplied to consumers complies with the trihalomethanes parametric value and submit the verification data. 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 30/10/19 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 the Action Reference Number DW2009/355 in any future correspondence in relation to this Report.		