

Our Ref: DWI 116/13 (Reg28_Notice/14/01)

Date: 26 September 2014

Mr G Butler
Asset Management Director
Northern Ireland Water Ltd
Westland House
40 Old Westland Road
BELFAST
BT14 6TE

Dear George

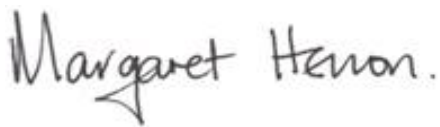
**NOTICE UNDER THE WATER SUPPLY (WATER QUALITY) REGULATIONS
(NORTHERN IRELAND) 2007 AS AMENDED BY REGULATION 28(4)(A) OF THE
WATER SUPPLY (WATER QUALITY) (AMENDMENT) REGULATIONS (NORTHERN
IRELAND) 2009 – RATHLIN WTWs AND ASSOCIATED WATER SUPPLY AREA**

1. Under regulation 27 of the above amendment regulations NI Water is required to undertake a risk assessment at each of its catchments, water treatment works, and distribution systems. Subsequently, under regulation 28, it must provide the Drinking Water Inspectorate (DWI) with a report of the risk assessment, or any review undertaken thereafter. DWI guidance on this regulatory requirement is given in Information Letter I/L 03/10.
2. A further amendment to the above regulations, The Water Supply (Water Quality) (Amendment) Regulations 2010, requires NI Water to ensure it has satisfactory evidence and controls in place to verify the performance of the disinfection process. DWI guidance on this regulatory requirement is given in Information Letter I/L 06/10.
3. As part of NI Water's requirement to verify the performance of the disinfection process at water treatment works, it provided the Inspectorate with disinfection statements for each of its WTWs.
4. The disinfection statements for WTWs are required by the Inspectorate as part of the documentation required to demonstrate verification of the disinfection process. These statements form part of its regulation 27 risk assessment reports for its individual works and constitute a report under regulation 28 of the 2009 amendment regulations.

5. An updated disinfection statement for Rathlin WTWs was provided by NI Water to the Inspectorate on the 8 August 2014,
6. The verification of effective disinfection is determined against the World Health Organisation's (WHO) recommendation of a minimum Ct value of 15 mg.min/l.
7. The disinfection statement provided for Rathlin WTWs [Document: DS/024; Issue No.:2] details that:
 - 7.1 NI Water's normal operating level within the contact tank is 1.3m and, with a flow of 75 m³/day, along with a target chlorine residual of 0.5 mg/l, a Ct value of 27.49 mg.min/l would be achieved.
 - 7.2 When the low level alarm is triggered within the contact tank at 0.8m, the Ct value is lowered to 16.80 mg.min/l. There is therefore a potential risk, if action is not promptly taken, for water to enter the distribution system which has not been subject to the minimum requirements for disinfection to have been achieved.
 - 7.3 In order to achieve the minimum requirements of disinfection, the plant operator must balance the flow rate with the target chlorine residual, which would be required to be closely monitored and controlled.
8. The procedures as detailed within the disinfection statement provide for a system of disinfection, that while meeting the minimum requirements for disinfection, in practice would only allow for a minimum margin of error in the operation of the WTWs.
9. Our assessment is that there is a potential significant risk of NI Water supplying water from Rathlin WTWs, which may not comply with the minimum requirements for disinfection. As a consequence of our assessment we are issuing a notice to NI Water under regulation 28(4)(a).

10. Through this regulation 28 notice, the Inspectorate **requires** NI Water to maintain the measures specified within the notice for the period of time detailed.
11. This regulation 28 notice (Reg_28Notice/14/01) **requires** NI Water to implement the measures specified in the notice from the date of this letter.
12. Failure of NI Water to comply with the conditions set within this notice may result in an enforcement order.
13. Any enquiries about this letter or the attached regulation 28 notice should be addressed to Margaret Herron (Tel: 028 9056 9294) or David O'Neill (Tel: 028 9056 9243).
14. Copies of this letter are being sent to the Director of Water Policy Division, DRD; Director of Resource Efficiency Division (Northern Ireland Environment Agency); the Director of Public Health; the Chief Environmental Health Officer (DHSSPS); Chief Environmental Health Officers for Moyle District Council; Director of Water Regulation, NIAUR; and Head of Water, CCNI.
15. Please acknowledge receipt of this letter, by e-mail to: DWI@doeni.gov.uk

Yours sincerely



Margaret Herron
Chief Inspector of Drinking Water
Drinking Water Inspectorate

Enc: Regulation 28 Notice (Reg28_Notice/14/01)

NOTICE UNDER THE WATER SUPPLY (WATER QUALITY) REGULATIONS (NORTHERN IRELAND) 2007 AS AMENDED BY REGULATION 28(4)(A) OF THE WATER SUPPLY (WATER QUALITY) (AMENDMENT) REGULATIONS (NORTHERN IRELAND) 2009

The Department for Regional Development

1. is satisfied that Northern Ireland Water Ltd (NI Water), in supplying water from Rathlin Water Treatment Works to the following water supply zones

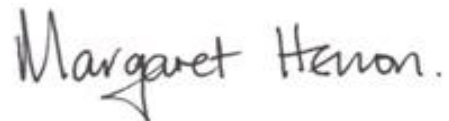
Water Treatment Works (WTWs)	Water Supply Zones
Rathlin Water Treatment Works (W1703)	Rathlin Island (ZN0204)

has provided a report, Rathlin Island WTWs Disinfection Statement (DS/024; Issue No. 2), on the 8 August 2014 which demonstrates there is a potentially significant risk of NI Water supplying water from Rathlin WTWs which may not comply with the minimum requirements to ensure adequate disinfection for water leaving the WTWs;

2. is notifying NI Water that on 26 September 2014 it is requiring NI Water, through a regulation 28 notice, to maintain the specified measures as outlined below;
3. is hereby requiring NI Water:
 - 3.1 to put in place appropriate training for the plant operator of Rathlin Island WTWs to ensure the Ct levels as detailed within the disinfection statement are met;
 - 3.2 to have in place monitoring and records to demonstrate that the minimum Ct values as detailed in the disinfection statement are being achieved at all times;
 - 3.3 to have in place appropriate measures to ensure the level within the contact tank, the target residual chlorine, and the flow rate are maintained to ensure appropriate disinfection takes place at all times;
 - 3.4 to have in place automatic shut down of the supply from the WTWs to prevent water which has not achieved the minimum standard for disinfection entering the distribution system; and
 - 3.5 to provide appropriate evidence to the Drinking Water Inspectorate detailing how it will comply with the above notice, **by the 31 October 2014, and thereafter provide a monthly update report.**

The above measures are to remain in place until such times as the work programme to reassign the service reservoir for Rathlin (V1750) as the Clear Water Tank for the WTWs have been completed, and a revised disinfection statement issued to the Drinking Water Inspectorate.

Authorised by the Department for Regional Development to sign on its behalf:

A handwritten signature in black ink that reads "Margaret Herron." The signature is written in a cursive style with a clear, legible font.

Margaret Herron
Chief Inspector of Drinking Water
Drinking Water Inspectorate
26 September 2014